# RIVER PROTECTION PROJECT (RPP)
## "WHAT ARE WE BUYING" STATEMENTS FOR FY 2002

**03U TW03 RPP Double Shell Tanks [DST] Minimum Safe Operations**

**Benefits Summary:** FY 2002 and out-year work scope focuses on the following necessary activities to operate all RPP DST Tank Farm Facilities within the approved authorization basis and in compliance with environmental regulations: (1) perform surveillance and monitoring including data acquisition and analysis; (2) provide routine operations and maintenance of RPP DST Tank Farm Storage Facilities in support of Waste Characterization, safety issues resolution, and waste receipt and transfer from stabilization/isolation and facility cleanout; (3) receive small amounts of low-level radioactive condensate from other Hanford facilities in minimum safe operations; (4) maintain/develop operating procedures, provide training and qualification programs commensurate with assigned duties, AB emergency response, strategic planning, and program management; (5) provide environmental compliance management; and (6) handle solid waste generated by RPP DST's facilities.

**Risk Narrative:** There is no risk reduction applicable to this UAS. This UAS supports risk avoidance by maintaining minimum safe operations allowing risk reduction in other UAS's to be accomplished.

**Significant Mortgage Reduction:** This UAS does not result directly in significant mortgage reduction.

**TPA, DNFSB or Consent Decree Drivers:** There are no direct TPA, DNFSB, or consent decree requirements fulfilled by this UAS. This UAS indirectly supports the following TPA Milestones: M-32, M-43, and M-46.

**Significant Changes from FY 2001-2002:** No significant change.

**Connectivity from UAS to PBS end points:** This UAS contributes to the PBS end point by providing for the safe storage of tank waste within the approved authorization basis. In doing so it allows for the eventual retrieval of the waste and closure of all DST's, which is planned for completion on 9/30/34.

**03Y TW03 RPP Single Shell Tanks [SST] Minimum Safe Operations**

**Benefits Summary:** FY 2002 and out-year work scope focuses on the following necessary activities to operate all RPP SST Tank Farm Facilities within the approved authorization basis and in compliance with environmental regulations and the Tri-Party Agreement: (1) perform surveillance and monitoring including data acquisition and analysis; (2) provide routine operations and maintenance of RPP SST Tank Farm Storage

Facilities; (3) provide utilities/services needed to maintain plant operability/ configuration; and (4) operate SST complexes and 200W ancillary facilities.

**Risk Narrative:** There is no risk reduction applicable to this UAS. This UAS supports risk avoidance by maintaining minimum safe operations allowing risk reduction in other UAS's to be accomplished.

**Significant Mortgage Reduction:** This UAS does not result directly in significant mortgage reduction.

**TPA, DNFSB or Consent Decree Drivers:** There are no direct TPA, DNFSB, or consent decree requirements fulfilled by this UAS. This UAS indirectly supports M-41 and the Consent Decree on Saltwell Pumping.

**Significant Changes from FY 2001-2002:** No significant change is anticipated.

**Connectivity from UAS to PBS end points:** This UAS contributes to the PBS end point by providing for the safe storage of tank waste within the approved authorization basis. In doing so it allows for the eventual retrieval of the waste and closure of all DST's, which is planned for completion on 9/30/34.

**0FU TW03 RPP Transfers & Waste Staging**

**Benefits Summary:** FY 2002 and out-year work scope focuses on both internal and external waste transfers and 242-A Evaporator Waste Staging transfers, which are necessary to support SST Saltwell pumping, Evaporator campaigns, tank waste retrieval, and other site missions (i.e. SNF).

**Risk Narrative:** There is some risk reduction in this UAS, as this workscope supports Saltwell Pumping and Evaporator campaigns for transferring waste out of leaking SST's into DST's and the Evaporator.

**Significant Mortgage Reduction:** This UAS does not result directly in significant mortgage reduction.

**TPA, DNFSB or Consent Decree Drivers:** There are no direct TPA, DNFSB, or consent decree requirements fulfilled by this UAS. This UAS indirectly supports M-41, M-43, M-46, and the Consent Decree on Saltwell Pumping.

**Significant Changes from FY 2001-2002:** No significant change is anticipated.

**Connectivity from UAS to PBS end points:** This UAS supports the PBS end point by accomplishing transfer of the waste from SST's to DST's and the Evaporator. In doing so, it allows for the eventual retrieval of the waste and closure of all DST's, which is planned for completion on 9/30/34.

**03X TW01 RPP Waste Characterization (Support to Min Safe Ops.)**

**Benefits Summary:** Characterization sampling to support waste compatibility issues and waste transfer is performed in accordance with the Data Quality Objectives for Tank Farms Waste Compatibility Program Revision 3 (Mulkey, Miller, and Jackson 1999), safety-related requirements, and operations-related requirements. Waste transfers that require sampling the compatibility DQOs are DST to DST, SST to DST, and waste generating processes to DSTs. The compatibility DQOs has two functions. The first is to ensure that DSTs comply with existing requirements and guidelines including operating specification document limits, operational safety requirements, and criticality prevention specifications. The guidelines based on chemical or physical measurements of the waste. The second is to ensure that the potential for release of waste products is not increased by performing the transfer. FY 2002 and out-year activities include planning, data development, engineering, sample collection, and sample analyses.

**Risk Narrative:** There is no risk reduction applicable to this UAS. This UAS supports risk avoidance by maintaining minimum safe operations allowing risk reduction in other UASs to be accomplished.

**Significant Mortgage Reduction:** This UAS does not result directly in significant mortgage reduction.

**Significant Changes from FY 2001-2002:** No significant change.

**Connectivity from UAS to PBS end points:** This UAS contributes to the accomplishment of the PBS endpoint by providing all tank sampling activities required by Tank Farm Operations, which will facilitate tank waste retrieval and tank farm closure.

**TPA, DNFSB or Consent Decree Drivers:** TPA milestone M-44 -14, Submit Final WIRD

**03W TW02 RPP Flammable Gas Minimum Safe Operations**

**Benefits Summary:** FY 2002 work scope focuses on the efforts for closure of the USQ for ancillary facilities. This includes characterization, accident analysis, evaluation of options for final facility conditions and preparation of documentation for closure of the USQ for vaults, inactive evaporators and selected IMUSTs. There are no TPA milestones for this work. Closure of the USQ is needed to ensure that the authorization basis is in compliance with DOE Order 5480.23 and to facilitate disposal of the waste.

This activity also provides for maintaining Standard Hydrogen Monitoring Systems (SHMS) on tanks where needed and removing, or isolating, SHMS on tanks where continuous monitoring is no longer needed. Finally this activity provides for the analysis and evaluation of the data being obtained on SSTs and DSTs so that a reliable

interpretation of the behavior of these tanks with respect to flammable gas issues can be made.

**Risk Narrative**: There is no risk reduction applicable to this UAS. This UAS supports risk avoidance by maintaining minimum safe operations allowing risk reduction in other UASs to be accomplished.

**Significant Mortgage Reduction Activities**: This UAS does not result directly in significant mortgage reduction; however, closure of the flammable gas safety issue and removal of tanks from the Watch List will result in more efficient and cost effective operations.

**Significant Changes from FY 2001-2002**: The cost of this UAS has a significant decrease in FY 2002 due to completion of TPA M-40-00 (Mitigate/Resolve Tank Safety Issues for High-Priority Watch List Tanks) in FY 2001.

**Connectivity from UAS to PBS end points**: This UAS contributes to the accomplishment of the PBS end point by providing closure of the flammable gas safety issue and upgrades to the AB (flammable gas controls) as a basis for operations and retrieval.

**TPA, DNFSB or Consent Decree Drivers**: There are no TPA, DNFSB, or consent decree requirements fulfilled by this UAS. Drivers include DOE Order 5480.21.

**046 TW10 RPP Mgmt Support-Env. Safety, Health & Quality Ass.**

**Benefits Summary**: FY 2002 work scope focuses on establishing, implementing and maintaining an environmental, safety, health and quality assurance program for the RPP. The work scope assures that the intent and spirit of local, state, and federal regulations, DOE requirements and contractual obligations for the protection of workers, the public and the environment, and the execution of the RPP mission are met. The work scope provides technical and management resources necessary to maintain the requisite programs; develop compliance and permitting strategies; achieve Voluntary Protection Program (VPP) recognition; execute accident and injury reporting; and respond to emerging conditions that may prevent compliance.

**Risk Narrative**: This UAS supports risk avoidance by maintaining minimum safe operations and supporting risk reduction in other UAS.

**Significant Mortgage Reduction**: This UAS does not result in significant, direct mortgage reduction.

**Significant Changes from FY 2001 - 2002**: The increase from FY2001 to FY2002 is due to self-performance of ESH& Q functions previously performed by the Project Management Hanford Contractor. Additionally, schedule and cost changes result from acceleration of the VPP application process from FY2001 to FY2000; Department of

Energy assessment and recognition efforts have also been accelerated from FY2001-2002 to FY2000-2001.

**Connectivity from UAS to PBS end points**: This UAS contributes to the accomplishment of the PBS endpoint by providing for safe and compliant systems and processes for storage of waste, and facilitates overall mission execution.

**TPA, DNFSB or Consent Decree Drivers**: There are no specific TPA, DNFSB, or consent decree requirements associated with this UAS at this time. UAS 046 does provide for: 1) negotiation and management of RPP consent decrees commitments; and 2) administration of RPP TPA reporting, records, and commitment negotiation.

**040 TW10 Mgmt. Support – Engineering Management & Admin.**

**Benefits Summary**: FY 2002 work scope focuses on executive management, project control, and administration for the RPP Technical Operations and Engineering organization. This UAS provides program systems/services essential for effective integration and execution of RPP engineering functions that include program development, business management, support to the Plant Review Committee, Chief Engineering oversight of design authority and cognizant engineering effort, and management of the technical baseline and authorization basis. This UAS provides Numatec Corporation executive oversight for RPP Construction/Program Management.

**Risk Narrative**: There is no risk reduction applicable to this UAS. This UAS supports risk avoidance by maintaining minimum safe operations allowing risk reduction in other UASs to be accomplished.

**Significant Mortgage Reduction**: This UAS does not result directly in significant mortgage reduction.

**Significant Changes from FY 2001 - 2002**: Addition of the Numatec Corporation executive oversight for Construction/Program Management.

**Connectivity from UAS to PBS end points**: This UAS provides engineering management scope support for the overall mission. Its life-cycle extends beyond any specific construction project to coordinate engineering activities until facility closure, and thus directly maps to the completion of all PBS end points.

**TPA, DNFSB or Consent Decree Drivers**: There are no TPA, DNFSB, or consent decree requirements fulfilled by this UAS.

**049 TW02 RPP Safety, USQ, Authorization Basis**

**Benefits Summary**: FY 2002 work scope is required to maintain the technical basis that supports operation within the DOE approved risk envelope (i.e., the Authorization Basis). Included are those activities required to: provide an annual review and update of the AB; maintain a USQ process and training program; maintain the Plant Review Committee; provide Technical Safety Requirement (TSR) interpretations; maintain the RPP criticality safety program; maintain procedures and databases necessary to meet S/RIDs and effectively implement the AB portion of the safety management system; address emergent issues involving the AB; conduct required personnel training; and perform management assessments.

**Risk Narrative**: There is no risk reduction applicable to this UAS. This UAS supports risk avoidance by maintaining minimum safe operations allowing risk reduction in other UASs to be accomplished.

**Significant Mortgage Reduction Activities**: This UAS does not result directly in significant mortgage reduction.

**Significant Changes from FY 2001-2002**: There is no significant change in this UAS from FY 2001 to 2002.

**Connectivity from UAS to PBS end points**: This UAS contributes to the accomplishment of the PBS end point by providing upgrades to the AB as a basis for operations and retrieval.

**TPA, DNFSB or Consent Decree Drivers**: TPA M-41. Drivers also include DOE Orders 5480.21, 5480.22, and 5480.23.

**0FW TW03 RPP ECN Incorporation**

**Benefits Summary:** FY 2002 and out-year work scope focuses on Engineering Change Notice (ECN) incorporation as a major component of RPP operational configuration management (CM) and management of the RPP Technical Baseline. FY 2002 and out-year work scope is necessary to establish and provide accurate operating information for improved worker safety; enhanced operating efficiency; and to maintain a compliant configuration baseline based on a documented and traceable engineering basis through completion of the RPP mission.

**Risk Narrative:** There is no risk reduction applicable to this UAS. This UAS supports risk avoidance by maintaining minimum safe operations allowing risk reduction in other UAS's to be accomplished.

**Significant Mortgage Reduction:** This UAS does not result directly in significant mortgage reduction.

**TPA, DNFSB or Consent Decree Drivers:** There are no TPA, DNFSB, or consent decree requirements fulfilled by this UAS.

**Significant Changes from FY 2001-2002:** No significant change is anticipated.

**Connectivity from UAS to PBS end points:** This UAS is necessary to establish and provide accurate operating information for improved worker safety; enhanced operating efficiency; and to maintain a compliant configuration baseline based on a documented and traceable engineering basis through completion of the RPP mission. This UAS will continue until the closure of PBS TW-03.

### 0FZ TW03 RPP Emergency Preparedness Drill Requirements

**Benefits Summary:** RPP is required by State, Federal and DOE regulations and requirements to conduct drills to assess its readiness to respond to emergency conditions in hazardous and non-hazardous facilities. FY 2002 and out-year work scope focuses on conducting three types of drills: (1) Announced Hazardous Facility Drills; (2) Unannounced Hazardous Facility Drills; and (3) Limited Scope Non-Hazardous Facility Drills.

**Risk Narrative:** There is no risk reduction applicable to this UAS. This UAS supports risk avoidance by maintaining minimum safe operations allowing risk reduction in other UAS's to be accomplished.

**Significant Mortgage Reduction:** This UAS does not result directly in significant mortgage reduction.

**TPA, DNFSB or Consent Decree Drivers:** There are no TPA, DNFSB, or consent decree requirements fulfilled by this UAS.

**Significant Changes from FY 2001-2002:** No significant change is anticipated.

**Connectivity from UAS to PBS end points:** This UAS is in support of the PBS end point by being prepared, which contributes to maintaining safe operations, to avoid and respond to emergency conditions. This UAS will continue until the closure of PBS TW-03.

### 0G2 TW03 RPP Configuration/Alarm Management

**Benefits Summary:** FY 2002 and out-year work scope provides for the analysis, correction, and/or deactivation of alarm indicators in all 18 tank farm and ancillary facilities as identified in Facility Evaluation Board findings 2.2.1.5 and 2.2.1.6. Included are the verification and validation of 1500 alarms, generation of ECNs for deactivation of 600 alarms, incorporation of ECNs on drawings and production of an alarm status report.

**Risk Narrative:** There is no risk reduction applicable to this UAS. This UAS supports risk avoidance by maintaining minimum safe operations allowing risk reduction in other UAS's to be accomplished.

**Significant Mortgage Reduction:** This UAS does not result directly in significant mortgage reduction.

**TPA, DNFSB or Consent Decree Drivers:** There are no TPA, DNFSB, or consent decree requirements fulfilled by this UAS.

**Significant Changes from FY 2001-2002:** No significant change is anticipated.
**Connectivity from UAS to PBS end points:** This UAS supports the PBS end point by helping to ensure minimum safe operations. This UAS will continue until the closure of PBS TW-03.

**0G5 TW03 RPP WDOE Environmental Records**

**Benefits Summary:** Environmental regulations require the retention of documents and records that demonstrate compliance with applicable requirements, regulations, and permits for RPP Treatment, Storage and Disposal (TSD), and emission units. Records must be retained for a minimum of 5 years and be retrievable within 24 hours of a Regulatory request. The Hanford site has committed to retrieving, scanning, coding, maintaining, and annually updating environmental regulatory records in the Hanford site Records Management Information System (RMIS) database. FY 2002 and out-year work scope focuses on 4 major elements: (1) Establish Baseline Regulatory Files; (2) Perform Annual Update of Regulatory Files; (3) Manage Compliant Regulatory Files; and (4) Develop and Maintain Environmental Records Procedures.

**Risk Narrative:** There is no risk reduction applicable to this UAS. This UAS supports risk avoidance by maintaining minimum safe operations allowing risk reduction in other UAS's to be accomplished.

**Significant Mortgage Reduction:** This UAS does not result directly in significant mortgage reduction.

**TPA, DNFSB or Consent Decree Drivers:** There are no TPA, DNFSB, or consent decree requirements fulfilled by this UAS.

**Significant Changes from FY 2001-2002:** No significant change is anticipated.

**Connectivity from UAS to PBS end points:** This UAS supports the PBS end point by complying with Environmental regulations that require the retention of documents and records that demonstrate compliance with applicable requirements, regulations, and permits for RPP Treatment, Storage and Disposal (TSD), and emission units. This UAS will continue until the closure of PBS TW-03.

**0G7 TW03 RPP Air Operating Permit Implementation**

**Benefits Summary:** An Air Operating Permit (AOP) is required by the Clean Air Act Amendments of 1990. FY 2002 and out-year work scope focuses on the maintenance of AOP activities: (1) performance of periodic confirmatory measurements for RPP emission sources; (2) RPP input into the AOP Semi-annual report, (including the AOP Progress report, describing the status of the compliance schedule from the AOP) and the annual Compliance Certification Report; and (3) update of the AOP as conditions change, and NOC's are applied for; and attendance at AOP steering committee meetings.

**Risk Narrative:** There is no risk reduction applicable to this UAS. This UAS supports risk avoidance by maintaining minimum safe operations allowing risk reduction in other UAS's to be accomplished.

**Significant Mortgage Reduction:** This UAS does not result directly in significant mortgage reduction.

**TPA, DNFSB or Consent Decree Drivers:** There are no TPA, DNFSB, or consent decree requirements fulfilled by this UAS.

**Significant Changes from FY 2001-2002:** No significant change is anticipated.

**Connectivity from UAS to PBS end points:** This UAS supports the PBS end point by maintaining activities that comply with the Clean Air Act Amendments of 1990. This UAS will continue until the close of PBS TW-03.

**0M8 TW03 As-Built Drawings and Component Labeling**

**Benefits Summary:** FY 2002 and out-year work scope focuses on producing as-built drawings that support the Authorization Basis and compliance commitments. They will accurately reflect the field configuration and are consistent with design information to safely support ongoing operations/maintenance and engineering.

**Risk Narrative:** There is no risk reduction applicable to this UAS. This UAS supports risk avoidance by maintaining minimum safe operations allowing risk reduction in other UAS's to be accomplished.

**Significant Mortgage Reduction:** This UAS does not result directly in significant mortgage reduction. However, there is significant mortgage reduction potential in this UAS if funding were provided. There is significant annual cost incurred due to rework and work stoppage which occurs as a result of work package errors and/or the need for re-verification of field conditions prior to starting work. Significant cost avoidance (mortgage reduction) could be achieved through the development and maintenance of as-

built drawings for tank farms, thus resulting in reductions of audit assessments, tank farm occurrences, procedure changes, and work stoppage.

**TPA, DNFSB or Consent Decree Drivers:** There are no TPA, DNFSB, or consent decree requirements fulfilled by this UAS.

**Significant Changes from FY 2001-2002:** Workscope will begin to ramp down in FY 2002.

**Connectivity from UAS to PBS end points:** This UAS supports the PBS end point in support of the Authorization Basis and compliance commitments. Workscope is scheduled for completion in FY 2006.

**0FY TW03 RPP Integrated Safety Mgmt. Sys. (Phase I)**

**Benefits Summary:** FY 2002 and out-year work scope focuses on continued efforts to verify and support the implementation of an integrated safety management system within RPP in response to 48 CFR (DEAR) 970.5204-2, Integration of ESH&Q into Work Planning and Execution; DOE Policy 450.4, Safety Management System Policy; Defense Nuclear Facilities Safety Board Recommendation 95-2, Safety Management.
Specific activities include: (1) Annually updating the RPP ISMS Implementation Plan (system description); (2) RPP review and comment of 1-annual revision of HNF-MP-003; and (3) routine program coordination activities and management interface.

**Risk Narrative:** This UAS provides risk reduction in the area of regulatory compliance. It reduces the risk of non-compliance with regulatory orders, which could result in significant penalties and fines.

**Significant Mortgage Reduction:** This UAS does not result directly in significant mortgage reduction.

**TPA, DNFSB or Consent Decree Drivers:** There are no TPA, DNFSB, or consent decree requirements fulfilled by this UAS.

**Significant Changes from FY 2001-2002:** No significant change is anticipated.

**Connectivity from UAS to PBS end points:** This UAS supports the PBS end point by providing risk reduction in the area of regulatory compliance. It reduces the risk of non-compliance with regulatory orders, which could result in significant penalties and fines. This UAS will continue until completion of PBS TW-03.

**0MR TW03 RPP 702 AZ Upgrades**

**Benefits Summary:** FY 2002 work scope focuses on A-Complex required ventilation deactivations and upgrades, including the deactivation of the A-702 Ventilation System. The A-Complex contains equipment that has been contaminated with tank waste and/or radioactive materials and are no longer required. Categorized equipment will be dispositioned per the Management of Contaminated Equipment at the Hanford site and RPP Abandoned Equipment/Storage Plan.

**Risk Narrative:** There is no significant risk reduction applicable to this UAS.

**Significant Mortgage Reduction Activities:** This activity represents the mortgage that will be reduced through avoiding the maintenance of equipment no longer in use therefore reducing the required resources.

**Significant Changes from FY 2001-2002:** There are no significant changes from FY 2001 to FY 2002 at this time.

**Connectivity from UAS to PBS end points:** This UAS contributes to the accomplishment of the PBS endpoint by providing for Adherence to the Management of Contaminated Equipment at the Hanford site and RPP Abandoned Equipment/Storage Plan.

**TPA, DNFSB, or Consent Decree Drivers:** There is no TPA or Consent Decree associated with this activity at this time. The Primary driver for this work is WAC-173-303 Dangerous Waste Regulations.

**041 TW03 RPP TMACS and ENRAF**

**Benefits Summary:** FY 2002 work scope focuses on installing and connecting fourteen critical monitoring equipment Liquid Level Gauges (LLGs) to TMACS to provide analysis and alarm capability in tank farms. This instrumentation modification supports the requirement for tank farm surface level monitoring for single-shell tank leak and intrusion detection. The SST waste attributes shall be remotely monitored to identify potential anomalies with the authorization basis and initiate response actions. Tank farm liquid level monitoring ensures all Authorization Basis, environmental, and other applicable regulatory requirements are met.

**Risk Narrative:** Risk reduction in FY 2002 applicable to this UAS #041is accomplished by data collection controlling and identifying potential intrusion tank overfilling, provide waste accountability, and detect primary tank leaks. In correlation, the current LLGs manual readings will be converted by this work to automatic through connection to the TMACS I/O network that includes tie-in to TMACS.

**Significant Mortgage Reduction:** This activity represents the mortgage that will be reduced through avoiding the current liquid level monitoring consisting of routine manual data acquisition therefore reducing the required resources. Implementation of the SST waste level monitoring system LLGs shall be capable of providing data to TMACS for alarm capability at or below the authorization basis limits.

**TPA, DNFSB, or Consent Decree Drivers:** There is no TPA or Consent Decree associated with this activity at this time. The Primary driver for this work is the Wyden Amendment "Safety Measures for Waste at Hanford Nuclear Reservation" Section 3137 of the National Defense Authorization Act fir Fiscal Year 1991, November 5, 1990, Public Law 101-510.

**Significant Changes from FY 2001-2002**: There are no significant changes expected.

**Connectivity from UAS to PBS end points**: This UAS contributes to the accomplishment of the PBS endpoint by providing for safe and compliant storage of the waste, which will facilitate tank waste retrieval and tank farm closure.

**04B TW01 RPP Waste Characterization (Support to Evaporator)**

**Benefits Summary:** FY 2002 and out-year work scope focuses on acquiring grab samples from candidate feed tanks and performing required laboratory analyses in order for waste evaporator operations to be completed within the boundaries of operating requirements. Successful operation of the 242-A Evaporator requires sampling and analysis of the evaporator feed waste. Sampling and analysis is directed by 242-A Evaporator/Liquid Effluent Retention Facility Data Quality Objectives (Von Bargen 1998). Activities include planning, data development, engineering, sample collection, and sample analyses. This work implements control requirements on existing material, waste, and facilities to ensure they remain in a safe, stable condition. No remediation will occur unless determined to be safety related.

**Risk Narrative:** This UAS contributes to risk reduction by providing for the characterization of waste in support of the evaporator campaigns. This will result in reduction of waste volumes and consequently reduction of risk to the public, worker and the environment.

**Significant Mortgage Reduction:** This UAS does not result directly in significant mortgage reduction.

**Significant Changes from FY 2001-2002:** No significant change.

**Connectivity from UAS to PBS end points:** This UAS contributes to the accomplishment of the PBS endpoint by providing all tank sampling activities required for completion of the Evaporator campaigns, which will facilitate tank waste retrieval and tank farm closure.

**TPA, DNFSB or Consent Decree Drivers:** TPA milestone M-44 -14 and M-41-00

**0G4 TW03 RPP DST RCRA Part B Application**

**Benefits Summary:** FY 2002 work scope focuses on supporting the inclusion of the Double Shell Tank (DST) System in Modification G of the Hanford Facility Resource Conservation and Recovery Act (RCRA) permit, and implementation of said permit.

The content of the application is specified by regulation and agreement with the Washington State Department of Ecology. The permit application is comprehensive and contains 15 independent sections. Each section is developed separately and carried to an approval stage with Ecology. Permit sections cover a wide variety of information including: process information, monitoring, waste analysis, waste acceptance criteria, training, emergency procedures, record keeping and regulatory requirements.

**Risk Narrative:** Failure to perform these activities significantly increases financial risk of enforcement actions, including fines and penalties, and restrictive and expensive-to-implement permit conditions.

**Significant Mortgage Reduction Activities:** This UAS does not result in mortgage reduction.

**Significant Changes from FY 2001-2002:** The change from FY 2001 is from permit application preparation activities, to permit implementation activities in FY2002.

**Connectivity from UAS to PBS end points:** This UAS contributes to the accomplishment of the PBS endpoint of permitting RPP facilities.

**TPA, DNFSB, or Consent Decree Drivers** : Although TPA requirements were partially met by submittal of a DST System permit application in 19992, an additional TPA driver remains for these activities. The TPA requires DOE to comply with the RCRA permit, which requires that the DST System be included in modification G of the RCRA Permit. These actions are necessary to achieve that goal. There are no DNFSB or Consent Decree Drivers associated with these activities.

**0G6 TW03 RPP Waste Acceptance Program**

**Benefits Summary:** Formalizing the present waste acceptance information used by RPP is necessary to assure compliance with regulatory requirements and assure compliance with the RPP Authorization Basis. Consistent direction must be provided to waste generators to allow for efficient waste characterization and transfer planning. Additionally, update of the RPP waste acceptance program supports development and

approval of the RCRA Part B application. FY 2002 and out-year work scope consists of an annual update to the RPP Waste Acceptance Plan.

**Risk Narrative:** This UAS provides risk reduction in the area of regulatory compliance. It reduces the risk of delay and/or approval of the RPP RCRA part B application. Delay could result in substantial penalties and fines.

**Significant Mortgage Reduction:** This UAS does not result directly in significant mortgage reduction.

**TPA, DNFSB or Consent Decree Drivers:** There are no TPA, DNFSB, or consent decree requirements fulfilled by this UAS.

**Significant Changes from FY 2001-2002:** No significant change is anticipated.

**Connectivity from UAS to PBS end points:** This UAS will continue until the completion of PBS TW-03. This UAS contributes to the PBS end point by providing for regulatory compliance and the safe storage of tank waste within the approved authorization basis.

**2QL TW03 RPP TF RES & SAFE OPS (W-314) – PHASE 2**

**Benefits Summary:** FY 2002 Phase 2 work scope will provide upgrades for selected tank farm (AN, AP, AY, AW, AZ, SY, and 244-S-DCRT) instrumentation control, tank ventilation, waste transfer, and electrical systems in order to restore these systems to an acceptable design basis required for compliant transfer.. The project focuses primarily on improvements needed to support waste disposal privatization and routine operations of existing double-shell tank farm facilities during the Tank Waste Remediation System mission. Due to the age and obsolescence of the existing equipment, it is often difficult to obtain replacement parts for failed or degraded components. These conditions, coupled with the problems associated with performing maintenance work in contaminated areas, have resulted in high operation and maintenance costs for the tank farm facilities. The Phase 2 work in FY 2002 involves:

- Definitive Design for tank farm AP, AY, AW, AZ, and 244-S-DCRT
- Procurement associated with tank farm AZ, and 244-S-DCRT
- Construction work in tank farm AN

**Risk Narrative:** Failure to restore or upgrade existing tank farm safety-related systems will lead to continued degradation of existing safety systems. Systems would fail faster than routine maintenance can keep pace. For the evaluation scenario it is assumed that a tank ventilation system fails, and is irreparable by normal maintenance. Flammable gas builds up in a tank and results in a deflagration (rapid burn with intense heat). The pressure from the deflagration would breach the ventilation system and would release tank waste into the environment. Failure to implement tank farm upgrades would violate the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement),

RCRA, and Washington State Dangerous Waste Regulations requiring safe management of radioactive and mixed waste.

**Significant Mortgage Reduction:** This UAS does not result directly in significant mortgage reduction.

**TPA, DNFSB or Consent Decree Drivers:** TPA Milestone M-43-15, Start Construction in 4th farm by 3/29/02

**Significant Changes from FY 2001-2002:** No significant change is expected.

**Connectivity from UAS to PBS end points:** This UAS supports the Phase 2 Retrieval process and upgrades to various components in tank farms to support the RPP mission. This UAS is scheduled for completion in FY 2005

**04H TW10 RPP Management Support - Fee**

**Benefits Summary**: As payments for performance, this UAS provides the funding for annual negotiated Performance Incentives between ORP and the contractor.

**Risk Narrative**: There is no risk reduction directly associated with this UAS.

**Significant Mortgage Reduction**: There is no mortgage reduction directly associated with this UAS.

**Significant Changes from FY 2001 - 2002:** None

**Connectivity from UAS to PBS end points:** Not Applicable

**TPA, DNFSB or Consent Decree Drivers:** There are no TPA, DNFSB, or Consent Decree drivers associated with this UAS at this time.

**04C TW10 RPP Management Support - ORP Support**

**Benefits Summary**: FY 2002 work scope provides for ORP oversight of RPP. This includes (1) providing technical analysis, programmatic services and administration to support ORP public involvement, permitting, and NEPA processes, including those specific to EIS; (2) accommodating ORP requests for services, functional execution, and administrative tasks (some contracted or provided by national laboratories, including PNNL) that comprise technical analysis, presentations, or other products, notably NEPA documentation and supplement analyses; (3) supporting environmental permitting and compliance; and (4) supporting ORP interface with other programs, the public, etc.

**Risk Narrative**: There is no risk reduction applicable to this UAS. This UAS supports risk avoidance by maintaining minimum safe operations allowing risk reduction in other UASs to be accomplished.

**Significant Mortgage Reduction**: This UAS does not result directly in significant mortgage reduction.

**Significant Changes from FY 2001 - 2002**: None

**Connectivity from UAS to PBS end points**: This UAS provides management support for the overall mission and as a result supports achievement of the project end point.

**TPA, DNFSB or Consent Decree Drivers**: There are no TPA, DNFSB, or consent decree requirements fulfilled by this UAS.

**04D TW03 RPP Operations ORP Support**

**Benefits Summary:** FY 2002 and outyear work scope provides ORP-administered support for other companies, including laundry support for RPP Tank Farms Operations, RCRA Groundwater Well Monitoring, modular steam boiler mortgage payment, OSHA, ISMS, HEJTA, Operational Readiness Review, annual S/RIDs update, and Sub Tap activities.

**Risk Narrative:** There is no risk reduction applicable to this UAS. This UAS supports risk avoidance by maintaining minimum safe operations allowing risk reduction in other UAS's to be accomplished.

**Significant Mortgage Reduction:** This UAS does not result directly in significant mortgage reduction.

**TPA, DNFSB or Consent Decree Drivers:** There are no TPA, DNFSB, or consent decree requirements fulfilled by this UAS.

**Significant Changes from FY 2001-2002:** No significant change is anticipated.

**Connectivity from UAS to PBS end points:** This UAS provides some of the infrastructure and other requirements for the PBS to achieve its end point.

**04E TW02 RPP Safety ORP Support**

**Benefits Summary**: FY 2002 work scope provides oversight of AB updates and the USQ process.

**Risk Narrative**: There is no risk reduction applicable to this UAS. This UAS supports risk avoidance by maintaining minimum safe operations allowing risk reduction in other UASs to be accomplished.

**Significant Mortgage Reduction Activities**: This UAS does not result directly in significant mortgage reduction.

**Significant Changes from FY 2001-2002**: This UAS has a significant decrease in FY 2002 due to completion of FSAR implementation and safety issue resolution in FY 2001.

**Connectivity from UAS to PBS end points**: This UAS contributes to the accomplishment of the PBS end point by providing oversight support to upgrades of the AB as a basis for operations and retrieval.

**TPA, DNFSB or Consent Decree Drivers**: There are no TPA, DNFSB, or consent decree requirements fulfilled by this UAS. Drivers include DOE Order 5480.21 and 5480.23.

**04F TW01 RPP Characterization ORP Support**

**Benefits Summary:** Benefits Summary: FY 2002 and out-year work scope provides programmatic guidance oversight for the River Protection Project (RPP) in order to ensure safe storage of waste within the tanks. Examples of past years' work involved the following: provide support to the Chemical Reaction Sub-TAP; provide support to Tier III review of SAD 035 revision; provide Data Quality Objective support; provide facilitators for Partnering Team meetings; and support Closure of Organic Safety Issue. Work planned for FY 2002 and beyond may include (but may not be limited to) similar efforts, as listed above.

**Risk Narrative:** There is no risk reduction applicable to this UAS. This UAS supports risk avoidance by maintaining minimum safe operations allowing risk reduction in other UASs to be accomplished.

**Significant Mortgage Reduction:** This UAS does not result directly in significant mortgage reduction.

**Significant Changes from FY 2001-2002:** N/A

**Connectivity from UAS to PBS end points:** This UAS contributes to the accomplishment of the PBS endpoint by providing key oversight to the activities within the PBS.

**TPA, DNFSB or Consent Decree Drivers:** TPA milestone M-44

**04G TW04 RPP Disposal ORP Support**

**Benefits Summary:** FY 2002 and outyear work scope focuses on reviews and evaluation of technical issues that will be provided by the technical advisory panel subgroups (subTAP) as requested by ORP. It also provides for ORP Tier II and Tier III safety reviews.

**Risk Narrative:** There is no risk reduction applicable to this UAS.

**Significant Mortgage Reduction Activities:** This UAS does not result directly in significant mortgage reduction.

**Significant Changes from FY 2001-2002:** There is no significant change in the cost from FY 2001 to FY 2002.

**Connectivity from UAS to PBS end points:** The purpose of this UAS is to capture ORP direction and the financial plan budget assessment that flows thorough the PBS for funding work which is not specifically controlled or performed by CHG/RPP.

**TPA, DNFSB, or Consent Decree Drivers:** There are no TPA, DNFSB, or Consent Decree Drivers directly associated with this UAS.

**05P TW10 RPP MGMT. Support – Proj. Plng, Intg. and Cont/CAD**

**Benefits Summary:** FY 2002 and out-year work scope focuses on providing program management oversight systems and services to support RPP technical functions, waste storage and disposal. In particular, this UAS provides (1) executive management; (2) planning, direction and control; (3) an interface with the site integrating contractor; (4) RPP compliance, project planning and integration activities include integration of program strategies; cyclical plans and project control; development and maintenance of life-cycle cost estimates; development of summary schedules and performance measures, support of construction projects, budget and funds analysis; maintenance of configuration and baseline management. (5) provide computer systems for the RPP program. (6) Fluor Hanford, Inc. (FHI) POC for services provided to ORP; (7) establish and perform the Information Resource Management (IRM) and Chief Information Officer (CIO) functions for the River Protection Project (RPP) activities, including Waste Storage, Waste Retrieval, and Waste Disposal, under the Office of River Protection (ORP). Included are several areas and activities that are intended to provide “productivity” improvement to the RPP as described by Richard French, Manager ORP, and described by specific CH2M HILL Hanford Group, Inc. (CHG) strategic initiatives.

**Risk Narrative**: There is no risk reduction applicable to this UAS. This UAS supports risk avoidance by maintaining minimum safe operations allowing risk reduction in other UASs to be accomplished.

**Significant Mortgage Reduction**: This UAS does not result directly in significant mortgage reduction.

**Significant Changes from FY 2001 - 2002**: The inclusion of IRM tasks in support of the Chief Information Office.

**Connectivity from UAS to PBS end points**: This UAS provides management support for the overall mission and as a result supports achievement of the project end point.

**TPA, DNFSB or Consent Decree Drivers**: There are no TPA, DNFSB, or consent decree requirements fulfilled by this UAS.

**1FM TW10 RPP PIO Support**

**Benefits Summary**: FY2002 work scope focuses on integrating, communicating and controlling the interfaces from activities/deliverables of the River Protection Project (RPP) participants, CH2M Hill Hanford Group, Inc. (CHG), BNFL, and Office of River Protection (ORP). The work scope assures that major contractors supporting the RPP mission are actively working together and provides the assembly of information to facilitate completing the RPP mission on schedule and for the lowest total project life cycle cost. The work scope includes maintenance of integrated baseline (cost, schedule, & technical), integrated set of requirements, standard information system for ease of data gathering, and other management tools, such as, performance measures.

**Risk Narrative**: This UAS indirectly supports risk avoidance by identifying and managing high level (RPP) risks that could potentially impact RPP. This UAS allows for identifying programmatic uncertainties and developing mitigating strategies.

**Significant Mortgage Reduction**: This UAS results in in-direct mortgage reduction by identifying potential conflicts between major contractors and providing resolutions which will allow work scope to continue and move forward in a timely manner.

**Significant Changes from FY2001-2002**: The current plan maintains a steady state Project Integration Office (PIO). Therefore, no significant increase is planned, however, further detailed planning may identify additional requirements and funding needs.

**Connectivity from UAS to PBS end points**: This UAS contributes to accomplishing of the PBS endpoint by supporting the integration and understanding of activities that facilitate tank waste retrieval and tank farm closure.

**TPA, DNSFB, or Consent Decree Drivers**: There are no specific TPA, DNFSB, or consent decree requirements associated with this UAS.

**05Q TW10 RPP MGMT Support - Sys Engineering & Integration**

**Benefits Summary**: FY 2002 work scope provides (1) systems engineering leadership for RPP as a foundation for the technical baseline, requirements management and interface control; (2) provides management direction and control, infrastructure, and support for risk/ decision processes; and (3) provides ongoing evolution, validation and maintenance of the RPP technical bases configuration, control of changes to it, and development of documents, systems, and tools that support its practical application; and (4) provides tools and experienced staff for improving processes associated with performing the RPP mission.

**Risk Narrative**: There is no risk reduction applicable to this UAS. This UAS supports risk avoidance by maintaining minimum safe operations allowing risk reduction in other UASs to be accomplished.

**Significant Mortgage Reduction**: This UAS does not provide significant direct mortgage reduction. However, this UAS indirectly contributes to mortgage reduction by defining RPP facility requirements and interfaces and improved processes and increased cost efficiencies and infrastructure reduction through work simplification and avoidance of rework and compliance issues.

**Significant Changes from FY 2001 - 2002**: None

**Connectivity from UAS to PBS end points**: This UAS provides management support for the overall mission and as a result supports achievement of the project end point.

**TPA, DNFSB or Consent Decree Drivers**: There are no TPA, DNFSB, or consent decree requirements fulfilled by this UAS.

**09T TW03 RPP Rover Patrol**

**Benefits Summary:** Protective Force coverage for the 200 West and 200 East Areas is predicated upon the May 6, 1994, Vulnerability Assessment (VA) and must continue until an updated VA determines that the coverage is no longer required. FY 2002 and out-year work scope funds the protective forces based upon program or facility requirements for permanently assigned posts, immediate response to security incidents, and other security responsibilities. The RPP allocation is based upon shared resources such as K-9, Special Response Team, Patrol Operations Center, etc., and not upon dedicated patrol resources.

**Risk Narrative:** There is a risk that someone could commit an act of sabotage or an unauthorized entry inside the tank farms, thus creating a risk to an individual, workers, public, and environment; based on the severity and physical nature of the act. Since overall Site security has been downgraded, the probability of such an act is higher, per the VA findings. This UAS will result in significant risk reduction in the area of security.

**Significant Mortgage Reduction:** This UAS does not result directly in significant mortgage reduction.

**TPA, DNFSB or Consent Decree Drivers:** There are no TPA, DNFSB, or consent decree requirements fulfilled by this UAS.

**Significant Changes from FY 2001-2002:** No significant change is anticipated.

**Connectivity from UAS to PBS end points:** This UAS supports the PBS end point by ensuring safe and secure operations. This UAS will continue until the closure of PBS TW-03.

**0G0 TW03 RPP PAAA Compliance**

**Benefits Summary:** RPP is required by contract and federal regulations to implement the nuclear safety rules currently promulgated under the Price-Anderson Amendments Act (PAAA) for nuclear facilities and activities within the RPP contract scope. FY 2002 and out-year work scope provides for the development and implementation of an RPP PAAA reporting program infrastructure, and implementation of noncompliance screening and reporting processes. The RPP PAAA activity is comprised of four major components: (1) quick screen and reporting of "N/A" noncompliance; (2) report "minor" noncompliance; (3) report "significant" noncompliance; and (4) develop and maintain PAAA Infrastructure.

**Risk Narrative:** This UAS reduces the risk of the DOE Office of Enforcement issuing a notice of violation (NOV) or enforcement action on RPP and any costs associated with correcting this notice could result in non-allowable costs being incurred. Delayed investigation and reporting of deficiencies will impact the ability to meet the 45calendar day reporting requirement and may result in subsequent enforcement action.

**Significant Mortgage Reduction:** This UAS does not result directly in significant mortgage reduction.

**TPA, DNFSB or Consent Decree Drivers:** There are no TPA, DNFSB, or consent decree requirements fulfilled by this UAS.

**Significant Changes from FY 2001-2002:** No significant change is anticipated.

**Connectivity from UAS to PBS end points:** This UAS support the PBS end point in that it reduces the risk of the DOE Office of Enforcement issuing a notice of violation (NOV) or enforcement action on RPP and any costs associated with correcting this notice could result in non-allowable costs being incurred. This UAS will continue until the closure of PBS TW-03.

**0H3 TW10 RPP Management Support - Work Management**

**Benefits Summary**: FY 2002 work scope focuses on implementation of process and organizational changes along with new software systems of the Work Management Module to include Work Management, Project Management, Document and Records Management, Action Tracking, Engineering Change Control, Labor Entry and Reporting, Lock and Tag, and Personnel Qualification. This implementation will be throughout the RPP organization. This project consists of performance of Requirements Engineering for each of the above process areas and a phased implementation of process, systems, and organizational changes within RPP.

**Risk Narrative**: There is no risk reduction applicable to this UAS. This UAS supports risk avoidance by maintaining minimum safe operations allowing risk reduction in other UASs to be accomplished.

**Significant Mortgage Reduction**: This UAS does not result directly in significant mortgage reduction. However, this UAS indirectly contribute to mortgage reduction by defining RPP facility requirements and interfaces resulting in process improvements and efficiencies.

**Significant Changes from FY 2001 - 2002**: None

**Connectivity from UAS to PBS end points**: This UAS provides management support for the overall mission and as a result supports achievement of the project end point.

**TPA, DNFSB or Consent Decree Drivers**: There are no TPA, DNFSB, or consent decree requirements fulfilled by this UAS.

**0MN TW03 RPP Fire Hazard Analysis**

**Benefits Summary:** This activity implements requirements and direction provided by ORP relative to the fire hazards analysis (FHA) for Tank Farms (TF), 242-S and 242-T. The TF-FHA was approved by DOE with conditions in March, 1998.

These conditions include reconciling differences between the TF-FHA and BIO, developing a plan for implementing the TF-FHA recommendations and submitting exemption requests as identified in the FHA. This activity completes the TF-FHA approval conditions and provides for updating of the FHA based on reconciliation with the BIO/FSAR, safety issues resolution, and changes in baseline data and methodologies. This activity also provides for resolving recommendations for the 242-S and 242-T FHA and processing applicable exemption requests.

**Risk Narrative:** There is no risk reduction applicable to this UAS. This UAS supports risk avoidance by maintaining minimum safe operations allowing risk reduction in other UAS's to be accomplished.

**Significant Mortgage Reduction**: This UAS does not have significant mortgage reduction.

**TPA, DNFSB, or Consent Decree Drivers** : There are no direct TPA, DNFSB, or consent decree requirements fulfilled by this UAS.

**Changes from FY 2001-2002**: There are no significant changes expected.

**Connectivity from UAS to PBS end points**: This UAS support the end points by supporting safe storage and retrieval of waste throughout the PBS mission.

**06L TW03 RPP Interim Stab'n: Pumping/Emergency Pumping**

**Benefits Summary:** FY 2002 and out-year work scope focuses on performing Interim Stabilization on 29 single-shell tanks and isolation from water intrusion for these tanks and 11 other tanks. The re-baseline schedule includes completion of this scope of work. The plan continues the pumping of tanks A-101, AX-101, BY-106, BY-105, C-103, U-109, SX-105, SX-103, SX-101, U-106, U-108, U-107, S-111 and starts the pumping of tanks SX-102, U-111, S-109, S-112, S-101 and S-107. The pumping of tanks BY-105 (concrete layer) and C-103 (organic layer) carry special technical concerns, and their schedules have been adjusted to provide time for technical resolution. Tank BY-105 is scheduled to start pumping in FY 2001. Tank C-103 is scheduled to start pumping in FY 2002 as the last tank to be pumped, with a decision on its disposition to be made by December 30, 2000. The other tanks to be isolated consist of 10 tanks that have been previously interim stabilized and tank C-106 that is being stabilized by another program.

Also, included is workscope that maintains the equipment and necessary documentation to allow the capability to begin emergency pumping of a Single Shell Tank (SST) within 30 days of a tank being declared a leaker.

**Risk Narrative:** Recent studies indicate that pumping SSTs reduces the risk of a tank deflegration and the associated risk to the public and worker health. In addition, pumping of the SSTs reduces the environmental risk of leakage to the soil and contamination of the Vadose Zone.

**Significant Mortgage Reduction:** This UAS will contribute to substantial mortgage reduction in the areas of surveillance and monitoring, routine operations, maintenance, and waste transfers.

**TPA, DNFSB or Consent Decree Drivers:** The Consent Decree for Saltwell Pumping.

**Significant Changes from FY 2001-2002:** No significant change is anticipated.

**Connectivity from UAS to PBS end points:** This UAS supports the PBS end point by performing pumping of tank waste. In doing so, it allows for the eventual retrieval of the waste and closure of all DST's, that is planned for completion on 9/30/34.

### 043 TW01 RPP Waste Characterization (Support to Tank Pumping)

**Benefits Summary:** Work scope focuses on acquiring grab samples from tanks and performing required laboratory analyses in order for tank stabilization operations to be completed within the boundaries of operating requirements. These requirements are specified by Data Quality Objectives for Tank Farms Waste Compatibility Program Revision 3 (Mulkey, Miller, and Jackson 1999). All DSTs are within the scope of the compatibility DQO. The SSTs are within the scope the compatibility DQOs only if waste is scheduled to be transferred out of a SST, for example, for tank Interim Stabilization. When waste is scheduled to be transferred to a DST, both the receiver and the source tank (SST, DST, or process tank) must meet the requirements of the compatibility DQO. The compatibility DQO has two functions. The first is to ensure that DSTs comply with existing requirements and guidelines including operating specification document limits, operational safety requirements, and criticality prevention specifications. The guidelines based on chemical or physical measurements of the waste. The second is to ensure that the potential for release of waste products is not increased by performing the transfer. FY 2002 and out-year activities include planning, data development, engineering, sample collection, and sample analyses.

**Risk Narrative:** There is no risk reduction applicable to this UAS. This UAS supports risk avoidance by maintaining minimum safe operations allowing risk reduction in other UASs to be accomplished.
**Significant Mortgage Reduction:** This UAS does not result directly in significant mortgage reduction.

**Significant Changes from FY 2001-2002:** The specific sampling needs of the Tank Farm Operations Program, in support of this UAS for FY 2002, are at 170% of the FY 2001 level (+$1.2 million), driven by an increase in the number of tank transfers during the year.

**Connectivity from UAS to PBS end points:** This UAS contributes to the accomplishment of the PBS endpoint by providing all tank sampling activities required by Tank Farm Operations, which will facilitate tank waste retrieval and tank farm closure.

**TPA, DNFSB or Consent Decree Drivers:** TPA milestones M-44 - 14B and M-41-00, Complete Single-Shell Tank Interim Stabilization

**04U TW03 RPP Tank Farms Restoration & Safe Ops. (W-314)**

**Benefits Summary:** FY 2002 and out-year work scope will provide upgrades for selected tank farm instrumentation control, tank ventilation, waste transfer, and electrical systems in order to restore these systems to an acceptable design basis. The project focuses primarily on improvements needed to support waste disposal privatization and routine operations of existing double-shell tank farm facilities during the Tank Waste Remediation System mission. Due to the age and obsolescence of the existing equipment, it is often difficult to obtain replacement parts for failed or degraded components. These conditions, coupled with the problems associated with performing maintenance work in contaminated areas, have resulted in high operation and maintenance costs for the tank farm facilities.

**Risk Narrative:** Failure to restore or upgrade existing tank farm safety-related systems will lead to continued degradation of existing safety systems. Systems would fail faster than routine maintenance can keep pace. For the evaluation scenario it is assumed that a tank ventilation system fails, and is irreparable by normal maintenance. Flammable gas builds up in a tank and results in a deflagration (rapid burn with intense heat). The pressure from the deflagration would breach the ventilation system and would release tank waste into the environment. Failure to implement tank farm upgrades would violate the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement), RCRA, and Washington State Dangerous Waste Regulations requiring safe management of radioactive and mixed waste.

**Significant Mortgage Reduction:** This UAS does not result directly in significant mortgage reduction.

**TPA, DNFSB or Consent Decree Drivers:** TPA Milestone M-43

**Significant Changes from FY 2001-2002:** No significant change is expected.

**Connectivity from UAS to PBS end points:** This UAS supports both the Phase I Retrieval process and upgrades to various components in tank farms to support the RPP mission. This UAS is scheduled for completion in FY 2007.

**05S TW04 RPP DST Waste Retrieval (W-211)**

**Benefits Summary:** This project will provide mixing and pumping systems for retrieval of radioactive wastes from nine of Hanford's 28 double-shell tanks. The contents of these tanks consist of supernatant liquids and settled solids, which must be mixed prior to transferring the waste to treatment facilities or alternative storage. The project will provide systems to mobilize settled solids and transfer wastes out of the tanks to provide feed to future privatized processing plants, and allow near-term consolidation of tank wastes to restore useable DST storage capacity. This DST storage space is required to allow safe storage of alternate waste streams, such as waste from the single-shell tanks.

Additionally, the dilution and waste removal capabilities provided by the project will remediate the flammable gas issue in several of the flammable gas watch list DSTs.

FY 2002 work scope includes design activities for tanks AN-103 and AY-102; equipment procurement activities for AN-102, AN-104, AZ-102, and AY-102; and construction of mixing and retrieval systems for tanks AP-102/AP-104, AN-104, and AZ-102.

**Risk Narrative:** This UAS provides significant risk reduction in the area of schedule. Existing equipment installed in the double-shell tanks only allows the removal and transfer of supernatant liquids and is incapable of suspending and removing the settled solids. Without the waste mixing, dilution, and removal functions provided by this project, there will be no ability to provide feed to future processing plants, consolidate waste solids, or remediate flammable gas issues. If feed is not available to private vendors on schedule, the privatization contracts will permit award of monetary penalties. If DST space is not available for alternate waste streams, TPA milestones for SST stabilization and SST retrieval/closure will not be met.

**Significant Mortgage Reduction Activities:** This UAS does not result directly in significant mortgage reduction.

**Significant Changes from FY 2001-2002:** The significant increase in the cost from FY 2001 to FY 2002 is due to the deferral of construction of retrieval systems from FY 2001 to FY2002/FY2003 to reflect the new feed sequence.

**Connectivity from UAS to PBS end points:** This UAS contributes to the accomplishment of the PBS endpoints by ensuring that retrieval systems, requirements, and equipment are engineered, procured, available, and operable to support the waste retrieval mission.

**TPA, DNFSB, or Consent Decree Drivers:** There are no TPA, DNFSB or Consent Decree Drivers associated directly with this UAS.

## 04Y TW01 RPP Char'zn Support To Ret./Privatization

**Benefits Summary:** Work scope focuses on acquiring core and grab samples from tanks, and performing required laboratory analyses in order for tank retrieval operations to be completed. Characterization support to Retrieval Project will include sampling and analysis for: (1) Waste Feed Delivery (Phase I) criteria (envelopes A-D, low-level waste and high-level waste; (2) Privatization Phase I - DOE management of Private Contract criteria (same tanks as the tanks in the feed delivery, phase I); (3) Privatization phase 1 - direct samples to private contractor criteria (direct samples to BNFL); (4) Retrieval and Immobilization (Phase II) criteria (enhanced sludge washing); (5) SST Waste Retrieval and Tank Closure criteria. FY 2002 and out-year activities include planning, data development, engineering, sample collection, and sample analyses.

**Risk Narrative:** This UAS contributes to risk reduction by characterization of waste in the tanks. Successful Characterization of waste will allow for a safe and successful remediation of the tank waste and the eventual waste removal.

**Significant Mortgage Reduction:** This UAS directly supports retrieval of RPP high-level tank waste.

**Significant Changes from FY 2001-2002:** The specific sampling needs, in support of this UAS for FY 2002, are at 105% of the FY 2001 level (+$1.2 million), driven by an increase in the number of tanks requiring sampling in preparation for immobilization and subsequent closure.

**Connectivity from UAS to PBS end points:** This UAS contributes to the accomplishment of the PBS endpoint by providing all tank sampling activities required for tank waste retrieval and tank farm closure.

**TPA, DNFSB or Consent Decree Drivers:** Complete Delivery of Information requirements as identified in the Annually Submitted WIRD (TPA milestone M-44); Initiate HL/LAW Immobilization (Phase I) (M-51-03); Complete SST Waste Retrieval (M-45-05); Complete LAW Immobilization (M-60-00); Complete Closure of SSTs (M-45-00); Complete HLW Immobilization (M-51-00); also ICD-19; ICD-20 and ICD-23.

## 1MJ TW04 Project W-521, Waste Feed Delivery Systems

**Benefits Summary:** This UAS will provide the planning, design, and construction of the Project W-521, Waste Feed Delivery Systems, a Major Systems Acquisition that will provide mixing and pumping retrieval systems for DSTs. These systems will mobilize settled solids and transfer the waste out of the tanks to be staged for processing by the privatization contractor (PC). Supporting equipment will be located external to the tank(s). The project will also provide updates to tank control systems and to the waste transfer system by addition of a new AP valve pit and waste transfer line to the PC.

During FY 2002, work scope includes the design activities for tanks AN-101, AW-103 and AN-107; and the construction activities in AZ-101, the new valve pit in AP farm, and the transfer line to the privatization contractor.

**Risk Narrative:** This UAS provides significant risk reduction in the area of schedule. If delayed, feed would not be available to the privatization contractor on schedule and DST space would not be available for alternate waste streams, such as saltwell pumping of SSTs, retrieval of waste from SSTs, and receipt of waste from facilities being transitioned. If feed is not available to the PC on schedule, the privatization contracts will permit award of large monetary penalties. If DST space is not available for alternate waste streams TPA milestones for SST stabilization SST retrieval/closure will not be met.

**Significant Mortgage Reduction Activities:** This UAS does not result directly in significant mortgage reduction.

**Significant Changes from FY 2001-2002:** The increase from FY 2001 to FY 2002 is due mainly to initiation of construction of retrieval systems for AN-106, AZ-101, and AW-103; and the procurement of equipment for AZ-101 andAW-103.

**Connectivity from UAS to PBS end points:** This UAS contributes to the accomplishment of the PBS endpoints by ensuring that retrieval systems, requirements, and equipment are engineered, procured, available, and operable to support the waste retrieval mission.

**TPA, DNFSB, or Consent Decree Drivers:** There are no TPA, DNFSB or Consent Decree Drivers directly associated with this UAS.

## 05R TW04 RPP Double Shell Tank [DST] Waste Retrieval

**Benefits Summary:** The DST Waste Retrieval Project will provide the planning and operations for retrieving waste from DSTs for waste consolidation, resolve safety and technical issues, create space for waste retrieved from SSTs and MUSTs, and provide feed for privatized waste immobilization operations. It also provides project requirements for retrieval of DSTs. This provides the technical requirements for the Phase 1 privatization baseline and supports ongoing analysis, engineering, and definition of waste retrieval activities necessary to deliver feed to the private contractor.

This activity also supports readiness planning and evaluation of waste feed delivery systems installed to retrieve waste from Hanford tanks, and provides the integration function to ensure that the retrieval system technical, cost, and schedule baselines are integrated with the privatization facilities.

**Risk Narrative:** This UAS provides significant technical and schedule risk reduction. This activity develops the integrated and comprehensive requirements baseline for waste retrieval, uses systems engineering processes to ensure completeness of the technical baseline, and ensures that Authorization Basis, environmental compliance, and quality assurance requirements are contained in the retrieval project baseline. Risks of schedule delay and cost increases from potentially prolonged readiness reviews, management assessments, and related retrieval readiness evaluations are reduced.

**Significant Mortgage Reduction Activities:** This UAS does not result directly in significant mortgage reduction.

**Significant Changes from FY 2001-2002:** The increase from FY 2001 to FY 2002 is due to additional procurement of spare retrieval equipment, procurement of non-radioactive testing facility and equipment, maintenance and modification to critical tank

farm systems required to support retrieval operations, and increased level of readiness preparation activities.

**Connectivity from UAS to PBS end points:** This UAS contributes to the accomplishment of the PBS endpoints by ensuring that retrieval systems, requirements, and equipment are engineered, procured, available, and operable to support the waste retrieval mission.

**TPA, DNFSB, or Consent Decree Drivers:** There are no TPA, DNFSB, or Consent Decree Drivers directly associated with this UAS.

**04T TW05 RPP Privatization Program Mgmt. (WIT) Phase 1**

**Benefits Summary:** The Waste Disposal Integration Team provides direct and continuous support to the Assistant Manager for Tank Waste Processing and Disposal (AMPD) in the accomplishment of the AMPD mission. The Waste Disposal Integration Team provides direct and continuous support to the AMPD in the areas of program administration, funds management, communications and external relations, technical and programmatic baselines, decision and risk management, financial planning and management, program assessment, regulatory compliance, contract negotiations, and quality assurance. It also includes technology management and technical and financial analyses.

FY 2002 work scope focuses on the following:
1. Integrate the APMD privatized and non-privatized activities.
2. Assist the AMPD in the execution of the privatization contract.
3. Manage interfaces with the CHG/PHMC and privatized contractors.
4. Assist the AMPD in the management of interfaces with stakeholders and regulators.
5. Assist the AMPD in the Part B authorization to proceed decision.

**Risk Narrative:** There is no risk reduction applicable to this UAS.

**Significant Mortgage Reduction:** This UAS does not result directly in significant mortgage reduction.

**Significant Changes from FY2001 - 2002:** None

**Connectivity from UAS to PBS end points:** This UAS provides technical and project linkages between multiple contractors all supporting the OPR mission. The linkages assure that the multiple contractor scope is properly aligned, defined, configured and controlled to accomplish the mission.

**TPA, DNFSB or Consent Decree Drivers:** None

**04S TW05 RPP Management & Integration Vendor Interface**

**Benefits Summary:** FY 2002 scope ensures that the interfaces between the Privatization Contractor BNFL, Inc. (BNFL), and the CHG/PHMC Team are identified and agreed upon by DOE, BNFL, and the CHG/PHMC Team. The objective is to use the Integrated Product/ Process Team (IPT) approach to reach agreement for each of the Interface Control Documents (ICD). It provides direct support to the IPT by providing the CHG/PHMC representative for the Interface IPT and the Safety, Health, and Environmental IPT as defined in the Privatization Contract. It also includes coordination of other CHG/PHMC personnel required to support the IPT. In addition this activity includes technical review of several specific ICDs and completing any studies required to resolve open issues associated with these ICDs. These specific ICDs include the Deactivated Facility and Site (ICD 10), Air Emissions (ICD 22), Emergency Response (ICD 25) and Permits (ICD 26). The ICD reviews are expected to occur four times per year.

**Risk Narrative:** There is no risk reduction applicable to this UAS.

**Significant Mortgage Reduction:** This UAS does not result directly in significant mortgage reduction.

**Significant Changes from FY2001 - 2002:** None

**Connectivity from UAS to PBS end points:** This UAS provides technical and project linkages between multiple contractors all supporting the OPR mission. The linkages assure that the multiple contractor scope is properly aligned, defined, configured and controlled to accomplish the mission.

**TPA, DNFSB or Consent Decree Drivers:** There are no TPA, DNFSB, or consent decree requirements fulfilled by this UAS.

**052 TW04 RPP High Level Waste Support (M-51) Phase I**

**Benefits Summary:** This UAS provides services/products essential to the success of Privatization effort. FY 2002 work scope includes integration management with the private contractor, maintenance of interface control documents that govern the interfaces between the private contractor and the tank farm waste retrieval activities, and management of retrieval process development, retrieval technology assessment, and retrieval technology insertion activities.

**Risk Narrative:** This activity reduces project risks by ensuring that technical interfaces are managed and controlled, that appropriate and emerging technologies are inserted into retrieval plans, and that the retrieval technical approach and plans are maintained against the feed delivery requirements baseline.

**Significant Mortgage Reduction Activities:** This UAS does not result directly in significant mortgage reduction.

**Significant Changes from FY 2001-2002:** The decrease from FY2001 to FY 2002 results from the completion of laboratory testing and rheological evaluation of HLW samples.

**Connectivity from UAS to PBS end points:** This UAS contributes to the PBS endpoint by ensuring that interfaces and technologies for waste retrieval are defined and executed to defined mission requirements.

**TPA, DNFSB, or Consent Decree Drivers:** There are no TPA, DNFSB, or Consent Decree Drivers directly associated with this UAS.

### 051 TW04 RPP Low Activity Waste [LAW] Support Ph I

**Benefits Summary:** This UAS provides the following services/products essential to the success of the Phase 1 LAW Privatization effort. Work scope includes:
1. Provide WFD management.
2. Update RPP Operations and Utilization Plan
3. Provide WFD program analysis and control.
4. Provide program engineering support for project implementation and execution
5. Provide acquisition planning and development for tank farm upgrades

**Risk Narrative:** This UAS provides significant risk reduction by aligning the retrieval process with the feed delivery needs of the private contractor and by ensuring that the tank farm infrastructure can support the retrieval mission.

**Significant Mortgage Reduction Activities:** This UAS does not result directly in significant mortgage reduction.

**Significant Changes from FY 2001-2002:** The decrease from FY 2001 to FY 2002 is due to the completion of process parameter and waste behavior studies in FY 2001.

**Connectivity from UAS to PBS end points:** This UAS contributes to accomplishment of the PBS end point by ensuring that tank farm systems are in place to support waste retrieval and by ensuring that tank farm processes meet the feed delivery requirement of the private contractor.

**TPA, DNFSB, or Consent Decree Drivers:** TPA Milestone M-45-02

**05T TW08 Privatization Infrastructure Project W-519**

**Benefits Summary:** This activity will provide the necessary electrical infrastructure to deliver 62.5 MVA of electrical power to the Privatization Contractor, BNFL for the operation of waste treatment and immobilization facilities in the 200 E area. Also, included are all subordinate activities related to the preparation and execution of site construction activities and the tie-in of this electrical system. This activity also provides the principal site infrastructure to support the Privatization Contractor, BNFL, in the construction and operation of waste treatment and immobilization facilities in the 200 E area. Also included are all subordinate activities related to the preparation and execution of site construction activities and the tie-in of utility systems. FY 2002 should see this project drawing to its conclusion with only minor contract closeout work left to be completed and Habitat Mitigation activities to complete.

**Risk Narrative:** This UAS supports risk avoidance by maintaining minimum safe operations allowing risk reduction in other UASs to be accomplished.."

**Significant Mortgage Reduction Activities:** This UAS does not result directly in significant mortgage reduction; however, the eventual closure of tank farms due to processing of tank waste which this UAS supports will result in significant mortgage reduction.

**Significant Changes from FY 2001-2002:** Funding is significantly less as the project is completed except for closeout items.

**Connectivity from UAS to PBS end points:** This UAS contributes to the accomplishment of the PBS endpoint by providing for safe and compliant disposal of the waste, which will facilitate tank waste retrieval and tank farm closure.

**TPA, DNFSB, or Consent Decree Drivers** : There is no TPA or Consent Decree associated with this activity at this time. Drivers for these activities include DOE Orders.

**09U TW08 RPP Utility Operations Support**

**Benefits Summary:** This UAS provides funding to DYNCorp (DYN) to provide utilities and services to the Phase I Privatization Contractor (BNFL) during Phase 1. Specific activities include providing electrical power; raw, sanitary, and fire water; road services; and maintenance and operations support to BNFL during construction, start-up, production and deactivation activities.

Also, included in this UAS are the costs associated with training/transferring approximately 270 Hanford Site employees to support BNFL waste vitrification activities.

**Risk Narrative:** This UAS provides risk reduction in the schedule area. Successful execution of the activities in this UAS will reduce the risk of schedule delays to completion of the BNFL mission, thereby avoiding the potential imposition of substantial penalties and fines.

**Significant Mortgage Reduction Activities:** This UAS does not result directly in significant mortgage reduction; however, the eventual closure of tank farms due to processing of tank waste which this UAS supports will result in significant mortgage reduction.

**Significant Changes from FY 2001-2002:** There are no significant changes from FY 2001- FY 2002.

**Connectivity from UAS to PBS end points:** This UAS contributes to the accomplishment of the PBS endpoint by providing for safe and compliant disposal of the waste, which will facilitate tank waste retrieval and tank farm closure.

**TPA, DNFSB, or Consent Decree Drivers** : There is no TPA or Consent Decree associated with this activity at this time.

**04Z TW08 Infrastructure Program Admin. /Sys. Def'n**

**Benefits Summary:** This includes management, administrative and engineering/technical support associated with the management of typical programmatic deliverables (i.e., planning, reporting, monitoring and analysis) and commensurate responsibilities. Also included are management/implementation of memorandums of agreement (MOA); as well as the preparation of Infrastructure Program documents.

**Risk Narrative:** This UAS supports risk avoidance by maintaining minimum safe operations allowing risk reduction in other UASs to be accomplished.."

**Significant Mortgage Reduction Activities:** This UAS does not result directly in significant mortgage reduction; however, the eventual closure of tank farms due to processing of tank waste which this UAS supports will result in significant mortgage reduction.

**Significant Changes from FY 2001-2002:** None

**Connectivity from UAS to PBS end points:** This UAS contributes to the accomplishment of the PBS endpoint by providing for safe and compliant disposal of the waste, which will facilitate tank waste retrieval and tank farm closure.

**TPA, DNFSB, or Consent Decree Drivers** : There is no TPA or Consent Decree associated with this activity at this time. Drivers for these activities include DOE Orders.

**0DV TW08 RPP Waste Management**

**Benefits Summary:** This UAS provides funding to Waste Management Hanford (WMH) to provide support as required by the Phase I Privatization Contractor (BNFL). WMH will accept low level, low-level mixed, transuranic (TRU), and TRU mixed solid waste from the BNFL waste treatment facilities for disposal. Radioactive solid waste will be transported (by WMH) from the various BNFL staging locations for disposal. Transportation services and vehicles for transporting radioactive solid waste to the various DOE disposal facilities will be provided by WMH. WMH will also negotiate Hanford site permit modifications with the regulators, as needed.

WMH will receive non-radioactive and non-dangerous liquid effluent from BNFL for disposal. Radioactive and dangerous liquid effluent will also be received for treatment and disposal. WMH will evaluate the treatability of the liquid effluents, modify the permits for the 200 Area TEDF and LERF/ETF, define the administrative requirements, document the interface conditions, and update the authorization basis documents. WMH will provide support to Project W-519 in regards to the construction of the waste transfer lines that tie into the 200 Area TEDF and LERF/ETF facilities. WMH will operate the waste transfer lines during BNFL's waste treatment activities.

The 242-A Evaporator will be operated by WMH through Phase 1 (i.e., 2018) in support of waste feed delivery activities. Life extension upgrades to the Evaporator systems and facility will be performed to ensure continued availability through Phase 1.

**Risk Narrative:** This UAS provides risk reduction in the schedule area. Successful execution of the activities in this UAS will reduce the risk of schedule delays to completion of the BNFL mission, thereby avoiding the potential imposition of substantial penalties and fines.

**Significant Mortgage Reduction Activities:** This UAS does not result directly in significant mortgage reduction; however, the eventual closure of tank farms due to processing of tank waste which this UAS supports will result in significant mortgage reduction.

**Significant Changes from FY 2001-2002:** Funding is significantly decreased as the242-A Evaporator condenser replacement activities conclude.

**Connectivity from UAS to PBS end points:** This UAS contributes to the accomplishment of the PBS endpoint by providing for safe and compliant disposal of the waste, which will facilitate tank waste retrieval and tank farm closure.

**TPA, DNFSB, or Consent Decree Drivers** : There is no TPA or Consent Decree associated with this activity at this time. Drivers for these activities include DOE Orders.

**04R TW09 Programs, Systems Definition/Operatives**

**Benefits Summary:** The IHLW Interim Storage program will provide the program support, requirements to design and construct facilities for the IHLW, transportation to move the IHLW onsite and store the IHLW in an acceptable manner so it can be shipped to a geologic repository. This unit of analysis includes all activities to establish, maintain and strengthen the technical baseline as well as operations and monitoring of the IHLW interim storage facilities. Also included in this unit of analysis are the Phase II planning, engineering and operations for storage and eventual shipment to a geologic repository.

The FY 2002 work scope focuses on updating of the technical baseline through interfaces with the private contractor and the spent fuels program for storage of IHLW; development of the baseline for transportation of IHLW samples and disposal of failed high level waste melters.

**Risk Narrative:** The unit of analysis provides risk reduction in the area of schedule. Successful execution of the integration activities will reduce the risk of schedule delays to the privatization contract avoiding possible imposition of substantial penalties and fines.

**Significant Mortgage Reduction Activities:** The UAS will reduce the Hanford mortgage by providing safe compliant interim storage for the tank waste in a long-term stable form (Vitrification) instead of its current liquid state.

**Significant Changes from FY 2001-2002:** The increase in FY 2002 is due to addition to TW09 for Disposition of the IHLW failed melters and receipt and transportation of IHLW samples from the private vendor to verify the vitrification product.

**Connectivity from UAS to PBS end points:** The UAS provides direction, requirements and operations support to TW09 for receipt, transportation and storage of the IHLW that will be shipped to the National Geologic Repository at Yucca Mountain, Nevada. The IHLW storage facilities will be closed after shipment of the IHLW to the Geologic Repository.

**TPA, DNFSB, or Consent Decree Drivers:** There are no TPA milestones associated with the UAS in FY 2002, however, this UAS does support M20-56, M90-11, and M20-12.

**0MG TW09 IHLW Interim Storage Facility**

**Benefits Summary:** The FY 2002 work scope focuses on the design, early procurement activities, preliminary safety analysis and environmental permitting activities for project W-464 to provide transportation and interim storage of the IHLW Canisters produced by the privatization vendor.

**Risk Narrative:** The UAS supports risk reduction through detail design, early procurements of long lead items, integration with the Spent Fuels Program Operations and provisions for startup in a timely manner to avoid potential penalties from the privatization contractor

**Significant Mortgage Reduction Activities:** The IHLW Storage Project reduces the mortgage through providing safe storage of the IHLW in an environment that will permit shipment to the Geologic Repository. The facility will be designed to reduce the amount resources necessary for operations by using concepts such as national convection cooling

**Significant Changes from FY 2001-2002:** The increase from FY 2001 to FY 2002 is the start of Detail Design and Procurements for the storage facility.

**Connectivity from UAS to PBS end points:** The UAS contributes to the PBS by providing the transportation and interim storage of the IHLW for Phase 1 Vitrification activities.

**TPA, DNFSB, or Consent Decree Drivers:** This UAS supports the following TPA Milestones M-20-050, M90-11, and M-90-12.

**04X TW09 RPP ILAW Program, Sys Def'n/Perf. Assmt./Ops**

**Benefits Summary:** The ILAW Storage and Disposal effort will receive ILAW from the privatization vendor, transport the ILAW container to a near surface disposal facility and provide disposal, closure and monitoring of the vitrified ILAW product. The UAS contains the activities for the disposal technical baseline, the Performance Assessment, systems engineering interfaces and operations for the Phase 1 receipt of ILAW. Also included in the UAS are planning, systems engineering operations for the Phase II Privatization activities, transport of ILAW glass samples and disposal of ILAW failed melters.

Specific FY 2002 include development of requirements for failed melters, glass samples, updating of disposal requirements, programmatic planning and reporting and issuance of the FY 2003 Performance Assessment.

**Risk Narrative:** The UAS supports risk avoidance by providing minimum safe requirements through systems engineering and Performance Assessments activity.

**Significant Mortgage Reduction Activities:** This activity supports mortgage reduction through providing disposal of the immobilized low-activity waste produced by the private vendor.

**Significant Changes from FY 2001-2002:** The UAS was changed to add the disposition of failed ILAW Melters and the transport of glass samples. In addition the baseline was

changed to reflect going directly to disposal from storage of the ILAW initial production in the existing grout vaults.

**Connectivity from UAS to PBS end points:** The UAS contributes to the mission of immobilizing ILAW by providing safe and compliant transportation and disposal of the ILAW.

**TPA, DNFSB, or Consent Decree Drivers:** The following TPA Milestones are supported by this UAS: M-20-057, M-20-058, M90-03, M0-04-T01, M90-06, M90-07-T01, M-90-08, M-90-09-T01 and M-90-10.

**0MH TW09 W-465 ILAW Disposal Facility**

**Benefits Summary:** The Storage and Disposal effort will receive ILAW from the private vitrification vendor and provide transportation, disposal, closure and monitoring of the accepted ILAW. The unit of analysis includes all activities to prepare the design, construction, equipment procurement, permitting and safety analysis for the disposal unit (project W-465).

During FY 2002 activities will focus on advanced conceptual design, preparation of requirements, quality assurance activities, management plans and defining any potential issues from the CDR. These activities will also focus on the interface with the private vendor and site infrastructure as roads.

**Risk Narrative:** The UAS supports risk avoidance by maintaining minimum safe operations allowing risk reduction to other UAS's to be accomplished.

**Significant Mortgage Reduction Activities:** The mortgage due to Tank Waste is reduced by providing a disposal unit for the vitrified ILAW. This UAS also provides mortgage reduction by providing disposal for the initial phase 1 privatization thus reducing any penalty to the private vitrification contract.

**Significant Changes from FY 2001-2002:** Project W-465 has been changed from an interim storage unit for ILAW to a disposal, this is due to acceleration of the Performance Assessment activities.

**Connectivity from UAS to PBS end points:** The UAS provides the ability to meet the receipt date of ILAW from the private vendor in FY 2008.

**TPA, DNFSB, or Consent Decree Drivers:** The following TPA Milestones are supported by this UAS: M-20-57, M-90-03, M90-03, M0-90-04-T01, M90-06.

**0SU TW09 RPP W-520 ILAW Disposal Unit**

**Benefits Summary:** The ILAW unit of analysis (Project W-520) will receive ILAW from the private vitrification vendor, and dispose of the ILAW. The UAS is to handle the Phase 1 ILAW above quantities that will not fit in project W-465 and provide disposal capability for extended order in Phase 1. In FY 2002 there is very limited work scope for this project that involves maintaining the current preconceptual documents and interfaces with permitting.

**Risk Narrative:** The UAS supports risk avoidance by maintaining minimum safe operations allowing risk reduction to other UAS's to be accomplished.

**Significant Mortgage Reduction Activities:** This UAS will reduce the mortgage by providing a safe compliant disposal facility for the ILAW portion of the tank waste that has been vitrified.

**Significant Changes from FY 2001-2002:** There are no significant changes from FY 2001 due to the out year timing of this project.

**Connectivity from UAS to PBS end points:** The UAS is part of the disposal PBS for ILAW and provides the necessary continuity to continue disposal of the Phase 1 ILAW.

**TPA, DNFSB, or Consent Decree Drivers:** The following TPA Milestones are supported by this UAS: M-20-98, M-90-08, M-90-09-T1, M0-90-10.

**067 TW04 RPP Vadose Zone Characterization**

**Benefits Summary:** To date, tank leaks and associated releases of tank waste have resulted in groundwater contamination at four SST Waste Management Areas (S-SX, B-BX-BY, T, and TX-TY). To address this contamination, and the potential for future impacts, proposed Tri-Party Agreement Change Control Form M-45-98-03 was developed. This change control form identifies initial actions necessary to comply with the corrective action requirements of Chapter 173-303-646 of the Washington Administrative Code. This program activity implements the identified initial actions necessary to comply with the corrective action requirements.

In FY 2002 this program activity provides vadose characterization data which results in an improved understanding of subsurface conditions and processes to support RPP decisions. Specific work scope includes (a) interim corrective actions for controlling existing tank waste releases, (b) sampling and analyses of subsurface soils and (c) assessment of risk related to the long-term impacts of existing contamination. In addition, this program activity provides for vadose zone and closure planning.

**Risk Narrative:** This UAS provides risk reduction in the environmental area. It reduces the risk associated with near surface disposal and tank closure.

**Significant Mortgage Reduction Activities:** This UAS does not result directly in significant mortgage reduction.

**Significant Changes from FY 2001-2002:** The increase in cost is due to initiation of interim measures to mitigate leaks from the SSTs. During this time, barriers will be selected and procurement specifications prepared. Also during FY2002, work will start on characterization of the U Tank Farm. This work will run concurrently with characterization efforts in B-BX-BY and T-TX-TY. S-SX characterization activities are scheduled to be complete in FY 2001. This additional work scope in FY2002 will allow continued field efforts in the out years.

**Connectivity from UAS to PBS end points:** Data and analyses from vadose zone characterization are important to decisions on the need for interim corrective measures and retrieval of waste from SSTs for HLW feed delivery during Phase 1 privatization. In addition, these data can be used to support design and siting of immobilized low activity waste storage facilities to be constructed during Phase 1. These data also support Phase 2 activities including SST retrieval by the Phase 2 privatization contractor, and tank farm closure during Phase 2.

**TPA, DNFSB, or Consent Decree Drivers:** TPA Milestones M-45-98-03 (Draft)

## 055 TW04 RPP Hanford Tanks Initiative: EM-30

**Benefits Summary:** This UAS provides overall management, technical support and operations/maintenance support of Hanford Tanks Initiative (HTI) tasks that are performed to establish tank waste retrieval methods and requirements.

Hanford Tanks Initiative activities will demonstrate the capability to retrieve hard heel waste from suspected leaking SSTs using available technology. Results from the retrieval demonstration will provide design criteria for the initial SST retrieval system. The Hanford Tanks Initiative Project will also demonstrate quantification and characterization of residual tank wastes necessary to establish retrieval performance objectives.

**Risk Narrative:** There is no risk reduction applicable to this UAS

**Significant Mortgage Reduction Activities:** This UAS does not result directly in significant mortgage reduction.

**Significant Changes from FY 2001-2002:** There is no significant change in the cost from FY 2001 to FY 2002.

**Connectivity from UAS to PBS end points:** This UAS contributes to accomplishment of the PBS end point by ensuring that activities supporting the Hanford Tanks Initiatives are implemented according the RPP Systems Engineering Management Plan, that there is

adequate oversight in the area of safety, health and quality assurance, and that baseline controls are in place.

**TPA, DNFSB, or Consent Decree Drivers:** There are no TPA, DNFSB, or consent decree requirements fulfilled by this UAS.

### 0MF TW04 RPP SST Program Development

**Benefits Summary:** This UAS includes the retrieval and transfer of wastes from the single-shell tanks (SSTs) to the double-shell tanks (DSTs) for further waste processing. This begins with system definition and includes design, construction and startup and operations of SST retrieval systems and includes the development of Authorization Basis amendments that encompasses SST waste retrieval.

FY 2002 workscope includes C-107 sample analysis & rheology testing, completion of the SST USQ process, initiation of the definition of the SST retrieval sequences, retrieval systems demonstrations and tests (C-106 limits of technology demonstration, saltcake dissolution tests, confined sluicing tests), verification of SST farm (C & S farms) components & systems functionality, SST (C& S farms) trade and acquisition studies, and initiate conceptual design for project W-523, SST Retrieval Systems.

**Risk Narrative:** The risk associated with this UAS is to the schedule and Major TPA milestone associated with the final closure of tank farms.

**Significant Mortgage Reduction Activities:** This UAS does not result directly in significant mortgage reduction.

**Significant Changes from FY 2001-2002:** The change from FY 2001 to FY 2002 is due to the initiation of the conceptual design for project W-523 and issuance of the SST O&M concept. Upon validation of W-523, it will be assigned a unique UAS number. Excluding W-523, the remaining work contained in UAS 'OMF', there is no significant change in the cost from FY 2001 to FY 2002.

**Connectivity from UAS to PBS end points:** This UAS contributes to accomplishment of the PBS end point by ensuring that SST technologies and systems support final retrieval and ultimate closure of the single-shell tank farms.

**TPA, DNFSB, or Consent Decree Drivers:** TPA milestones, M-45-04, M45-05, M-45-09, and M-45-00

### 1AX TW04 RPP W-YYY: Tank Farm Upgrades

**Benefits Summary:** Project W-314 will provide upgrades for selected tank farm instrumentation control, tank ventilation, waste transfer, and electrical systems in order to

restore these systems to an acceptable design basis. The project focuses primarily on improvements needed to support waste disposal privatization and routine operations of existing double-shell tank farm facilities during the Tank Waste Remediation System mission. Due to the age and obsolescence of the existing equipment, it is often difficult to obtain replacement parts for failed or degraded components. These conditions, coupled with the problems associated with performing maintenance work in contaminated areas, have resulted in high operation and maintenance costs for the tank farm facilities.

This UAS provides for increased scope to the validated project, which is undergoing extensive study and re-estimation at this time. Should the additional funding not be required, the Program will revised the UAS at that time.

**Risk Narrative:** Failure to restore or upgrade existing tank farm safety-related systems will lead to continued degradation of existing safety systems. Systems would fail faster than routine maintenance can keep up. For the evaluation scenario it is assumed that a tank ventilation system fails, irreparable by normal maintenance. Flammable gas builds up in a tank and results in a deflagration (rapid burn with intense heat). The pressure from the deflagration would breach the ventilation system and would release tank waste into the environment. Failure to implement tank farm upgrades would violate the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement), RCRA, and Washington State Dangerous Waste Regulations requiring safe management of radioactive and mixed waste.

The risk associated with this UAS is that all funding required to complete W-314 will not be available, thus putting the project at risk for completion.

**Significant Mortgage Reduction Activities:** This UAS does not result directly in significant mortgage reduction.

**Significant Changes from FY 2001-2002:** The increase from FY 2001 to FY 2002 is due to the increased delta in line item funding to support construction in W-314.

**Connectivity from UAS to PBS end points:** This UAS contributes to accomplishment of the PBS end point by ensuring that tank farm systems are in place to support waste retrieval and by ensuring that tank farm processes meet the feed delivery requirement of the private contractor.

**TPA, DNFSB, or Consent Decree Drivers:** There are no TPA, DNFSB, or Consent Decree Drivers directly associated with this UAS.

### 04Q TW08 RPP Privatization Infrastructure (Phase II)

**Benefits Summary:** This UAS provides the required facilities and systems, which ensure the Phase II Privatization Contractor is integrated into the Hanford Site Infrastructure. This UAS also provides funding to DYNCorp (DYN) and Waste Management Hanford

(WMH) to provide electricity, water, solid waste disposal and sanitary waste services to the Phase II Privatization Contractor. Also, funds are provided to support M&I costs associated with operating and maintaining the infrastructure systems added to accommodate the Phase II Privatization Contractor.

For Phase II, the Acquisition project is expected to include the following Hanford Site infrastructure upgrades: electrical, water, site/roads, liquid effluent transfer systems, sewage/solid waste transfer/treatment/disposal, and telecommunications. Funding will be provided to the M & I to operate and maintain the sanitary sewer system, and utility costs associated with operation of the Phase II Privatization Contractor's facilities, e.g. electricity and water, and the costs for solid waste disposal. This also includes the coordination and funding of government furnished services (i.e., electrical supply/maintenance, solid waste disposal, raw water and potable water supply). Finally, this UAS provides funding to remove all utility system infrastructure upgrades added to support Phase I and Phase II. Removal activities shall occur after the Phase I and Phase II contractor's facilities have undergone D & D activities.

**Risk Narrative:** This UAS provides risk reduction in the schedule area. Successful execution of the activities in this UAS will reduce the risk of schedule delays to completion of the BNFL mission, thereby avoiding the potential imposition of substantial penalties and fines.

**Significant Mortgage Reduction Activities:** This UAS does not result directly in significant mortgage reduction; however, the eventual closure of tank farms due to processing of tank waste which this UAS supports will result in significant mortgage reduction.

**Significant Changes from FY 2001-2002:** The significant changes from FY 2001- FY 2002 are associated with the commencement of Project activities (engineering studies and AGAs).

**Connectivity from UAS to PBS end points:** This UAS contributes to the accomplishment of the PBS endpoint by providing for safe and compliant disposal of the waste, which will facilitate tank waste retrieval and tank farm closure.

**TPA, DNFSB, or Consent Decree Drivers:** TPA Milestone M-60-13, initiation of negotiations on Phase II LAW Pretreatment and Immobilization milestone.

**0AC TW03 RPP Integrity Inspection M-32**

**Benefits Summary:** FY 2002 and out-year work scope will perform an integrity assessment of DST's to meet the requirements of the Washington Administrative Code (WAC) 173-303-640 of the Dangerous Waste Regulations enforced by Ecology. These assessments will also provide assurance of sound DST's for retrieval and disposal operations that include waste characterization, salt well pumping, Hanford facility clean

outs, and waste received from other Hanford facilities with slightly radioactive HVAC condensates.

**Risk Narrative:** This UAS provides risk reduction by determining the structural integrity of the DST's since they are approaching the end of their design life.

**Significant Mortgage Reduction:** This UAS does not result directly in significant mortgage reduction.

**TPA, DNFSB or Consent Decree Drivers:** TPA Milestone M-32

**Significant Changes from FY 2001-2002:** No significant change is expected.

**Connectivity from UAS to PBS end points:** This UAS will continue until the closure of all DST's, which is scheduled for completion at 9/30/34. Inspections will continue to be made to verify the structural integrity over the life of the tank system.

**13K TW01 RPP Characterization Support to IMUSTS**

**Benefits Summary:** FY 2002 and out-year work scope provides waste characterization additional support to RPP Inactive Miscellaneous Storage Tanks (IMUSTs) Program to ensure safe storage of waste within the tanks. This represents incremental work for additional lower priority IMUSTs. Work involves acquiring grab, core and vapor samples, and performing required laboratory analyses in order for RPP IMUST operations to be completed. Activities include planning, data development, engineering, sample collection, and sample analyses.

**Risk Narrative:** This UAS contributes to risk reduction by characterization of waste in the (IMUSTs).

**Significant Mortgage Reduction**: This UAS does not result directly in significant mortgage reduction.

**Significant Changes from FY 2001-2002:** The specific sampling needs of the IMUST Program, in support of this UAS for FY 2002, are at 22% of the FY 2001 level (- $1.4 million). The funding level in FY 2002 represents only those funds for final task completion, as the majority of the funds/tasks for this UAS are in FY 2001.

**Connectivity from UAS to PBS end points:** This UAS contributes to the accomplishment of the PBS endpoint by providing all tank sampling activities required by the IMUST operations, which will facilitate tank waste retrieval and tank farm closure

**TPA, DNFSB or Consent Decree Drivers:** TPA milestone M-44.

**0J6 TW03 RPP Drawings/Documentation for Inactive Systems**

**Benefits Summary:** HNF-PRO-443 establishes the requirements and criteria to assist in ensuring that system deactivation activities are performed in a safe, environmentally sound, and cost-effective manner. This Engineering Procedure establishes requirements to ensure that the technical configuration of the facility is maintained during the orderly transition, deactivation and transfer of surplus DOE facilities from an operating mission to waste management and environmental restoration.

This activity provides development of deactivation requirements and end point criteria for existing hardware systems in Tank Farms that have no future mission value. Included is identification of system boundaries, system isolation requirements, technical baseline status, drawing archival, operations and maintenance procedure inactivation, spare parts to be excessed or reallocated, and other technical information changes.

**Risk Narrative:** The risk would be the continued cost of maintaining equipment that has no mission value, failure to comply with Dangerous Waste Regulations for abandoned equipment, and the potential for increased spread of contamination from deteriorating equipment conditions and/or ecological transport.

**Significant Mortgage Reduction:** This activity represents the mortgage that will be reduced through implementation of the waste removal, risk reduction, and deactivation sub-projects. As waste removal, risk reduction, and deactivation activities are completed, it eliminates the drivers behind minimum safe requirements, therefore reducing the required resources.

**TPA, DNFSB, or Consent Decree Drivers** : There are no direct TPA, DNFSB, or consent decree requirements fulfilled by this UAS.

**Significant Changes from FY 2001-2002:** There are no significant changes expected.

**Connectivity from UAS to PBS end points:** This UAS contributes to the accomplishment of the PBS endpoint by providing adequate information to safely and compliantly remove systems.

**0MA TW03 RPP Tank pH Issue Resolution**

**Benefits Summary:** This activity is comprised of three components, which are;

(1) Issue Recovery Action Plans, that quantify tank conditions and necessary short-term actions and/or caustic needs, were issued for the AP and AY farm tanks. This activity also assumes that new DST's will be classified as out-of-specification within the remaining tank life cycle, and new Recovery Action Plans will be issued accordingly.

(2) Issue Engineering Analyses - the AN farm tanks, several of the AP and AY tanks, and some future DST's which fall below specifications will require a more detailed engineering analysis to determine mitigation plans and process control strategy. The engineering analysis involves development of predictive chemistry modeling, laboratory testing, and corrosion probe data analysis.

(3) Provide Remaining DST Mitigation including adding caustic, adding monitoring equipment such as corrosion probes and tracking corrosion rates, to doing nothing. This activity plans and costs the installation of additional corrosion probes and the cost of additional sampling and analyses

**Risk Narrative:** This UAS supports programmatic risk reduction relative to assuring adequate tank capacity for waste storage and feed delivery over the life of the RPP mission. In particular, this activity directly supports RPP Critical Risk CR-036, "Increasing Obsolescence/Deterioration of Tank Farm Infrastructure" on the RPP Critical Risk List. Presently the RPP technical, cost, and schedule baseline assume construction of new waste storage tanks to replace aging DST's will not be required. Lead-time and cost to bring new tank capacity on line would have large cost and schedule impacts to the RPP mission. Maintaining tank waste chemistry within specifications for corrosion control increases the probability that DST's will not fail prior to the end of the RPP mission. However, current waste chemistry specifications are based on laboratory experiments conducted in the early 1980's, which may not adequately bound actual conditions in the DST's. In-tank corrosion monitoring, using corrosion probe technology currently under development, would provide real-time representative data on corrosivity in tanks, and potentially allows improved and more cost-effective means of waste chemistry control for DST's.

**Significant Mortgage Reduction:** Corrosion monitoring data can supplement waste chemistry data and waste chemistry specifications for decisions on addition of corrosion inhibitor (sodium hydroxide). Incorporation of corrosion monitoring in DST operating specifications has the potential to significantly reduce ultimate disposal costs, since sodium concentration is a controlling variable in waste vitrification. In the FY 2000 Technical Task Plan RL09WT41, covering corrosion probe technology development, it is estimated that $70 million in potential disposal cost savings could result from eliminating the addition of an estimated 100,000 gallons of 19M sodium hydroxide to four DST's.

**TPA, DNFSB, or Consent Decree Drivers**: There are no direct TPA, DNFSB, or consent decree requirements fulfilled by this UAS.

**Significant Changes from FY 2001-2002:** There are no significant changes expected.

**Connectivity from UAS to PBS end points**: This UAS contributes to the accomplishment of the PBS endpoint by taking steps to reduce the probability of DST failure during the RPP mission life, and to reduce incremental downstream disposal costs that would result from excessive sodium hydroxide addition for corrosion control. Thus

this UAS supports environmentally compliant and cost effective storage of waste, in accordance with PBS objectives.

### 0J5 TW03 RPP Facility Deactivation

**Benefits Summary:** FY 2002 activities are to maintain identification of all River Protection Project (RPP)/CHG managed Facilities, Structures, systems, and components (SSCs), and Waste Sites that are currently inactive and/or no longer needed for the RPP Mission; including:

- Provide day-to-day interface point with U.S. Department of Energy, Richland (RL) and the Office of River Protection (ORP), Fluor Hanford, Inc. (FHI) and Bechtel Hanford, Inc. in establishing "End Point" criteria, schedules and documentation for isolation, deactivation, decontamination, stabilization, and final transfer to the Environmental Restoration Project of all RPP inactive facilities, SSCs, and waste sites; specifically covered during this period are the 244-AR and 244-CR Vault Interim Stabilization activities.

- Maintain control over insect, rodent, vegetation and soil contamination in RPP managed inactive facilities, SSC, and waste sites.

- Provide management to optimize the use of RPP resources while minimizing the financial and scheduling impacts to the RPP Mission.

**Risk Narrative:** Risk associated with this activity is at two levels.

1. The failure to maintain the Inactive Facilities and Waste Sites in a "Compliant State", could potentially result in significant fines and other penalties, including loss of work and Contract Cancellation or failure to extend/renew the existing contract.

2. The spread and/or potential growth of contaminated acreage due to improper management of the 490 waste sites assigned to RPP, plus the continued loss of historical information due to the loss of employee knowledge and poor record keeping on old/abandoned facilities and waste sites.

**Significant Mortgage Reduction:** As waste removal, risk reduction, and deactivation activities are completed, it eliminates the drivers behind minimum safe requirements; therefore, reducing the required surveillance, maintenance and monitoring resources.

**TPA, DNFSB, or Consent Decree Drivers:** Every permitted waste site and/of facility is part of the 490 waste sites entered in the Waste Information Data System (WIDS). The WIDS database is attached to the TPA and is public information. All of the waste sites are covered under a number of TPA milestones including M-32 and M-45. The specific TPA milestone for the 244-AR Interim Stabilization activity is M-45-11. The Regulatory oversight requires an annual review of all inactive facilities and waste sites by the regulators.

**Significant Changes from FY 2001-2002:** No significant changes are expected in the UAS.

**Connectivity from UAS to PBS end points**: This UAS contributes to the accomplishment of the PBS endpoint by providing the planning and interface activities leading to the eventual successful deactivation of RPP facilities.

**0JD TW03 RPP DST SSC Analysis & Design Reconstitution**

**Benefits Summary:** This activity ensures the proper engineering management of all critical RPP structures, systems, and components (SSCs) necessary to store waste and provide feed for Retrieval and Disposal operations. The "critical" designation shall be applied to safety SSCs defined by the RPP Safety Equipment List (HNF-SD-WM-SEL-040), to SSCs which are directly needed for transfer and retrieval operations as defined by existing mission requirements documents, and to environmental SSCs identified in environmental permit-related documents.

**Risk Narrative**: It has caused project rework, schedule delays, inadequate safety controls, and increased costs. A revised Safety Equipment List was prepared and significant effort is scoped for labeling and farm configuration upgrade, yet design bases information is still not being addressed.

**Significant Mortgage Reduction**: This UAS does not result directly in significant mortgage reduction.

**Significant Changes from FY 2001 - 2002**: This workscope ramps down in FY 2002.

**Connectivity from UAS to PBS end points**: This UAS contributes to the PBS end point by providing for the safe storage of tank waste within the approved authorization basis. In doing so it allows for the eventual retrieval of the waste and closure of all DST's, which is planned for completion on 9/30/34.

**TPA, DNFSB or Consent Decree Drivers**: There are no TPA, DNFSB, or consent decree requirements fulfilled by this UAS.

**0JK TW03 Remove Inactive Systems From Operations**

**Benefits Summary:** This activity provides for performance of deactivation activities on existing hardware systems in all tank farm Complexes to the system deactivation play. Included is establishing the system boundaries, system isolation, technical baseline status updated via Engineering Change Notice (ECN) and archiving of drawings, inactivation of operations and maintenance procedures, and excessing/reallocation of spare parts.

**Risk Narrative**: This UAS reduces the potential for increased spread of contamination from deteriorating equipment conditions and/or ecological transport.

**Significant Mortgage Reduction**: This UAS provides for the early dispositioning of facilities which will result in mortgage reduction.

**Significant Changes from FY 2001 – 2002**: None

**Connectivity from UAS to PBS end points**: This UAS provides for the dispositioning of facilities which in turn supports the PBS mission of tank farm closure.

**TPA, DNFSB or Consent Decree Drivers**: There are no TPA, DNFSB, or consent decree requirements fulfilled by this UAS.

**0JF TW03 RPP Tank Structural Issue Resolution**

**Benefits Summary:** FY 2002 and out-year work scope focuses on addressing the updating of the structural analysis of record for underground storage tanks. Current analyses are either potentially too conservative or incomplete for managing the structural technical baseline forcing curtailing of operational activities or requiring extensive case-by-case analyses. This effort will evaluate the cost-benefit of an improved baseline and implement baseline revisions as needed.
**Risk Narrative**: This UAS supports risk avoidance by maintaining minimum safe operations and allowing risk reduction in other UAS's to be accomplished.

**Significant Mortgage Reduction**: This UAS does not result directly in significant mortgage reduction.

**Significant Changes from FY 2001 - 2002**: This value represents an increase in funding for this UAS because implementation of this effort was delayed until FY 2002.

**Connectivity from UAS to PBS end points**: This UAS contributes to the accomplishment of all Safe Storage PBS end-points by ensuring waste tank integrity and operational savings through cost-effective dome loading and structural baseline management.

**TPA, DNFSB or Consent Decree Drivers:** There are no TPA, DNFSB, or consent decree requirements fulfilled by this UAS.

**0JH TW03 Upgrade DST Hardware and Technical Baseline**

**Benefits Summary**: FY 2002 and out-year work scope focuses on management of the technical baseline (e.g., Safety Equipment List) of all Double-Shell Tanks and associated systems by cognizant technical personnel. It also coordinates minor facility upgrades to

ensure maximum cost effectiveness of system hardware over the remaining operational life.

**Risk Narrative**: There is no risk reduction applicable to this UAS. This UAS supports risk avoidance by maintaining minimum safe operations allowing risk reduction in other UAS's to be accomplished.

**Significant Mortgage Reduction**: This UAS does not result directly in significant mortgage reduction.

**Significant Changes from FY 2001 - 2002**: The only subactivity funded from this UAS in the past was effort to respond to technical queries. Currently, there is no funding on this UAS in FY 2001, limiting technical responses, and technical baseline maintenance and improvement. This value represents an increase in funding for this UAS because implementation of this effort was delayed until FY 2002.

**Connectivity from UAS to PBS end points**: This effort ensures the continual maintenance of all aspects of the RPP technical baseline providing a basis for all major project activities, cost-effective operations for waste storage, and coordination of modifications and operational activities for final waste retrieval and storage.

**TPA, DNFSB or Consent Decree Drivers**: There are no TPA, DNFSB, or consent decree requirements fulfilled by this UAS.

**0JJ TW03 Upgrade SST Hardware and Technical Baseline**

**Benefits Summary**: FY 2002 and out-year work scope focuses on management of the technical baseline (e.g., Safety Equipment List) of all Single-Shell Tanks and associated systems by cognizant technical personnel. It also coordinates minor facility upgrades to ensure maximum cost effectiveness of system hardware over the remaining operational life. This effort ensures the continual maintenance of all aspects of the RPP technical baseline providing a basis for all major project activities, cost-effective operations for waste storage, and coordination of modifications and operational activities for final waste retrieval and storage.

**Risk Narrative**: There is no risk reduction applicable to this UAS. This UAS supports risk avoidance by maintaining minimum safe operations allowing risk reduction in other UAS's to be accomplished.

**Significant Mortgage Reduction**: This UAS does not result directly in significant mortgage reduction.

**Significant Changes from FY 2001 - 2002**: The only subactivity funded from this UAS in the past was effort to respond to technical queries. Currently, there is no funding on this UAS in FY 2001, limiting technical responses, and technical baseline maintenance

and improvement. This value represents an increase in funding for this UAS because implementation of this effort was delayed until FY 2002.

**Connectivity from UAS to PBS end points**: This UAS technical baseline support for the overall mission. Its life-cycle extends beyond any specific construction project to coordinate engineering activities until facility closure, and thus directly maps to the completion of all PBS end points.

**TPA, DNFSB or Consent Decree Drivers**: There are no TPA, DNFSB, or consent decree requirements fulfilled by this UAS.

**2M2 TW01 Laboratory Life Extension/Upgrades 222-S Lab**

**Benefits Summary**: Work scope focuses on upgrades to the 222-S laboratory in support of efforts to reduce the turnaround time for Characterization Program sample analyses. Reducing sample analysis turnaround time will directly affect the Program's support to the Retrieval Project, to include analysis for: (1) Waste Feed Delivery (Phase I) criteria (envelopes A-D, low-level waste and high-level waste; (2) Privatization Phase I - DOE management of Private Contract criteria (same tanks as the tanks in the feed delivery, phase I); (3) Privatization phase 1 - direct samples to private contractor criteria (direct samples to BNFL); (4) Retrieval and Immobilization (Phase II) criteria (enhanced sludge washing); (5) SST Waste Retrieval and Tank Closure criteria. The workscope in this UAS include: Upgrades to 222-S equipment, Hood and instrument design modifications, Improvements to HLW DQO analytical and hot cell sample preparation methods, and development of new radiochemical separation/preparation procedures.

**Risk Narrative**: This UAS contributes to risk reduction through improvements to the equipment and methods utilized in the analysis of waste in the tanks. Accurate and timely analysis of waste will allow for a safe and successful remediation of the tank waste and the eventual waste removal.

**Significant Mortgage Reduction**: This UAS directly supports retrieval of RPP high-level tank waste.

**Significant Changes from FY 2001-2002**: N/A

**Connectivity from UAS to PBS end points**: This UAS contributes to the accomplishment of the PBS endpoint by improving tank sampling analytical activities required for tank waste retrieval and tank farm closure.

**TPA, DNFSB or Consent Decree Drivers**: Initiate HL/LAW Immobilization (Phase I) (M-51-03); Complete SST Waste Retrieval (M-45-05); Complete LAW Immobilization (M-60-00); Complete Closure of SSTs (M-45-00); Complete HLW Immobilization (M-51-00).